

# The bees of the genus *Andrena* Fabricius, 1775 (Hymenoptera, Andrenidae) described by Ferdinand Morawitz from the collection of Aleksey Fedtschenko

Yulia V. Astafurova<sup>1</sup>, Maxim Yu. Proshchalykin<sup>2</sup>, Dmitry A. Sidorov<sup>3</sup>

<sup>1</sup> Zoological Institute, Russian Academy of Sciences, Universitetskaya Nab., 1, Saint Petersburg, 199034, Russia <sup>2</sup> Federal Scientific Center of the East Asia Terrestrial Biodiversity, Far Eastern Branch of Russian Academy of Sciences, Vladivostok-22, 690022, Russia <sup>3</sup> Kemerovo State University, Kemerovo, 650000, Russia

Corresponding author: Maxim Yu. Proshchalykin ([proshchalikin@biosoil.ru](mailto:proshchalikin@biosoil.ru))

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## Abstract

The type specimens of the genus *Andrena* Fabricius, 1775, described by Ferdinand Morawitz from the collection of Aleksey Fedtschenko deposited in the Zoological Museum of the Moscow State University and in the Zoological Institute, Russian Academy of Sciences, St. Petersburg (Russia), are critically reviewed. Precise information with illustrations of types for 52 taxa is provided; of these 39 species are valid and thirteen are invalid (ten synonyms and three homonyms). Lectotypes are here designated for the following 24 nominal taxa: *Andrena acutilabris* Morawitz, 1876, *A. aulica* Morawitz, 1876, *A. bicarinata* Morawitz, 1876, *A. combusta* Morawitz, 1876, *A. comparata* Morawitz, 1876, *A. corallina* Morawitz, 1876, *A. discophora* Morawitz, 1876, *A. fedtschenkoi* Morawitz, 1876, *A. initialis* Morawitz, 1876, *A. laeviventris* Morawitz, 1876, *A. leucorhina* Morawitz, 1876, *A. mucorea* Morawitz, 1876, *A. nitidicollis* Morawitz, 1876, *A. oralis* Morawitz, 1876, *A. planirostris* Morawitz, 1876, *A. ravicollis* Morawitz, 1876, *A. rufilabris* Morawitz, 1876, *A. sarta* Morawitz, 1876, *A. smaragdina* Morawitz, 1876, *A. sogdiana* Morawitz, 1876, *A. subaenescens* Morawitz, 1876, *A. tuberculiventris* Morawitz, 1876, *A. turkestanica* Morawitz, 1876, and *A. virescens* Morawitz, 1876.

## Keywords

Anthophila, Apiformes, lectotypes, Palaearctic Region, taxonomy

## Introduction

The present paper is the second part of a series of works dealing with the bee taxa described by Ferdinand Morawitz from the collection of Aleksey Fedtschenko deposited in the Zoological Museum of the Moscow State University, Moscow (ZMMU) and in the Zoological Institute of the Russian Academy of Sciences, St. Petersburg (ZISP). In the first part, the family Halictidae was considered (Astafurova and Proshchalykin 2020). The main goal of this work is to make Fedtschenko's collection of bees more accessible and useful to scientists.

More than 140 years ago (1876), the second part of Ferdinand Morawitz's critical study on the bees collected by Aleksey Fedtschenko 1869–1871 Expeditions in “Turkestan” was published. In the first volume, “Apidae genuinae” (Morawitz 1875), Morawitz treated a total of 255 species of numerous genera, of which many species were described as new. In this second part, “Andrenidae” (Morawitz 1876), the remaining bees were dealt with, including the species of the difficult genera *Andrena* Fabricius, *Halictus* Latreille, and *Hylaeus* Fabricius, totalling 183 species (Pesenko and Astafurova 2003). The species treatments are of a high professional standard, the localities are precisely documented (A. Fedtschenko 1871; O. Fedtschenko 1874; Baker 2004; Kuhlmann 2005; Dathe and Proshchalykin 2017) and the type series have been carefully conserved over a long period, generally in the collections of the ZMMU and ZISP. To this day, these remain some of the most important manuscripts on bees of Central Asia.

*Andrena* Fabricius, 1775 is the one of the largest bee genera, numbering about 1550 species worldwide, of which about 950 are known from the Palearctic region (Gusenleitner and Schwarz 2002; Ascher and Pickering 2022). The genus is distributed throughout the Holarctic region, south in the Western Hemisphere to Panama, in Africa through the East African highlands and south to the Cape of Good Hope, and in Asia to the mountains of southern India and of Malaysia (Michener 2007). Only three species of *Andrena* are distributed in both the Palearctic and the Holarctic regions, whereas the others occur in only one of these zoogeographic realms. Many species appear to be widespread, and many are bivoltine, which has led to separate descriptions in different regions, especially in the Palearctic. Thus, about 3000 species descriptions were recognised at the beginning of 21<sup>st</sup> century (Gusenleitner and Schwarz 2002).

The genus *Andrena* is represented in Morawitz's 1876 publication by 68 species (Nos. 258–326). Only 16 species were previously known, while the remaining 52 were newly described (Table 1). Few of these taxa have been mentioned in subsequent publications, remaining enigmatic for decades.

Since the 1940s, V. Popov [ZISP] based his studies on the taxonomy and ecology of the Central Asian *Andrena* fauna using these collections (Popov 1940, 1947, 1949, 1952, 1958, 1960).

Type material of Fedtschenko's *Andrena* was studied by K. Warncke, a teacher in Dachau (Germany), who visited the ZMMU from 26.03.1975 to 01.04.1975

**Table 1.** The nominal taxa of Fedtschenko's *Andrena*, described by F. Morawitz, and their current status.

| N   | Species name                    | Sex  | Current status | Depositories of types      |
|-----|---------------------------------|------|----------------|----------------------------|
| 1.  | <i>Andrena acutilabris</i>      | ♀, ♂ | Valid          | LT (ZISP); PLT (ZISP/ZMMU) |
| 2.  | <i>Andrena ahenea</i>           | ♀, ♂ | Valid          | LT, PLT (ZMMU)             |
| 3.  | <i>Andrena amoenae</i>          | ♀    | Valid          | LT, PLT (ZMMU)             |
| 4.  | <i>Andrena arenaria</i>         | ♂    | Synonym        | HT (ZMMU)                  |
| 5.  | <i>Andrena aulica</i>           | ♀, ♂ | Valid          | LT (ZISP); PLT (ZISP/ZMMU) |
| 6.  | <i>Andrena bairacumensis</i>    | ♀    | Valid          | HT (ZMMU)                  |
| 7.  | <i>Andrena bicarinata</i>       | ♀    | Synonym        | LT (ZISP); PLT (ZISP/ZMMU) |
| 8.  | <i>Andrena capillosa</i>        | ♀    | Valid          | LT (ZMMU); PLT (ZISP)      |
| 9.  | <i>Andrena carinifrons</i>      | ♀    | Valid          | LT (ZISP)                  |
| 10. | <i>Andrena combusta</i>         | ♀, ♂ | Valid          | LT, PLT (ZMMU)             |
| 11. | <i>Andrena comparata</i>        | ♂    | Synonym        | LT (ZISP); PLT (ZISP/ZMMU) |
| 12. | <i>Andrena corallina</i>        | ♀    | Synonym        | LT (ZMMU)                  |
| 13. | <i>Andrena discophora</i>       | ♀, ♂ | Valid          | LT (ZMMU); PLT (ZISP/ZMMU) |
| 14. | <i>Andrena fedtschenkoi</i>     | ♀, ♂ | Valid          | LT (ZISP); PLT (ZISP/ZMMU) |
| 15. | <i>Andrena ferghanica</i>       | ♀    | Valid          | HT (ZISP)                  |
| 16. | <i>Andrena flavitarsis</i>      | ♀, ♂ | Valid          | LT (ZMMU); PLT (ZISP/ZMMU) |
| 17. | <i>Andrena fuscicollis</i>      | ♀, ♂ | Valid          | LT (ZMMU); PLT (ZISP/ZMMU) |
| 18. | <i>Andrena hieroglyphica</i>    | ♀    | Valid          | HT (ZMMU)                  |
| 19. | <i>Andrena infirma</i>          | ♀, ♂ | Valid          | LT (ZMMU); PLT (ZISP/ZMMU) |
| 20. | <i>Andrena initialis</i>        | ♀, ♂ | Valid          | LT (ZISP); PLT (ZISP/ZMMU) |
| 21. | <i>Andrena laeviventris</i>     | ♀    | Valid          | LT, PLT (ZMMU)             |
| 22. | <i>Andrena lateralis</i>        | ♀, ♂ | Valid          | LT (ZMMU); PLT (ZISP/ZMMU) |
| 23. | <i>Andrena leucorhina</i>       | ♂    | Synonym        | LT (ZMMU); PLT (ZISP/ZMMU) |
| 24. | <i>Andrena lucidicollis</i>     | ♂    | Valid          | ST (ZMMU)                  |
| 25. | <i>Andrena maculipes</i>        | ♀, ♂ | Valid          | LT (ZISP); PLT (ZISP/ZMMU) |
| 26. | <i>Andrena majalis</i>          | ♀    | Valid          | LT (ZMMU); PLT (ZISP/ZMMU) |
| 27. | <i>Andrena mordax</i>           | ♂    | Valid          | LT (ZMMU); PLT (ZISP/ZMMU) |
| 28. | <i>Andrena mucorea</i>          | ♀, ♂ | Valid          | LT (ZMMU); PLT (ZISP/ZMMU) |
| 29. | <i>Andrena nigrita</i>          | ♂    | Homonym        | HT (ZMMU)                  |
| 30. | <i>Andrena nitidicollis</i>     | ♀, ♂ | Valid          | LT, PLT (ZMMU)             |
| 31. | <i>Andrena nupta</i>            | ♀, ♂ | Valid          | LT (ZMMU); PLT (ZISP/ZMMU) |
| 32. | <i>Andrena oralis</i>           | ♀    | Valid          | LT (ZISP); PLT (ZMMU)      |
| 33. | <i>Andrena pannosa</i>          | ♀    | Valid          | LT (ZISP); PLT (ZISP/ZMMU) |
| 34. | <i>Andrena planirostris</i>     | ♀, ♂ | Valid          | LT (ZISP); PLT (ZISP/ZMMU) |
| 35. | <i>Andrena punctifrons</i>      | ♀    | Valid          | HT (ZMMU)                  |
| 36. | <i>Andrena punctiventris</i>    | ♀    | Valid          | HT (ZMMU)                  |
| 37. | <i>Andrena quadrifasciata</i>   | ♀    | Valid          | HT (ZMMU)                  |
| 38. | <i>Andrena ravicollis</i>       | ♀    | Synonym        | LT (ZISP); PLT (ZMMU)      |
| 39. | <i>Andrena rufilabris</i>       | ♀    | Synonym        | LT, PLT (ZMMU)             |
| 40. | <i>Andrena rufina</i>           | ♀, ♂ | Valid          | LT, PLT (ZMMU)             |
| 41. | <i>Andrena sarta</i>            | ♀    | Valid          | LT (ZMMU)                  |
| 42. | <i>Andrena semiaenea</i>        | ♀    | Valid          | LT (ZMMU); PLT (ZISP/ZMMU) |
| 43. | <i>Andrena smaragdina</i>       | ♀, ♂ | Valid          | LT (ZISP); PLT (ZMMU)      |
| 44. | <i>Andrena sogdiana</i>         | ♂    | Synonym        | LT (ZISP)                  |
| 45. | <i>Andrena sordida</i>          | ♀, ♂ | Homonym        | LT (ZMMU); PLT (ZISP/ZMMU) |
| 46. | <i>Andrena subaenescens</i>     | ♀, ♂ | Valid          | LT (ZISP); PLT (ZISP/ZMMU) |
| 47. | <i>Andrena temporalis</i>       | ♂    | Homonym        | LT (ZMMU); PLT (ZISP/ZMMU) |
| 48. | <i>Andrena tuberculiventris</i> | ♂    | Valid          | LT (ZMMU); PLT (ZISP/ZMMU) |
| 49. | <i>Andrena turkestanica</i>     | ♀, ♂ | Synonym        | LT (ZISP); PLT (ZMMU)      |
| 50. | <i>Andrena urmitana</i>         | ♂    | Synonym        | HT (ZMMU)                  |
| 51. | <i>Andrena virescens</i>        | ♀, ♂ | Valid          | LT (ZISP); PLT (ZISP/ZMMU) |
| 52. | <i>Andrena viridigastra</i>     | ♀, ♂ | Valid          | LT (ZMMU); PLT (ZISP/ZMMU) |

LT – lectotype, PLT – paralectotype/s, ST – syntype.

(Dathe and Proshchalykin 2017). He worked his way through the drawers containing the Fedtschenko material and labelled specimens of all nominal taxa found there as “Lectotypus.” Thereby, certain specimens from some groups of bees (*Hylaeus*, *Andrena*, *Anthidium*, *Halictus*, etc.) received a red label with the inscription “Lectotypus Warncke 1975.” All other type specimens were left without nomenclatural status labels. However, unlike other groups of bees (Warncke 1981, 1982), he did not publish information about the designation of *Andrena* lectotypes.

In 1980 A.Z. Osytsnjuk continued the study of *Andrena* in the Fedtschenko’s collection of the ZISP and ZMMU. The lectotype and paralectotype designations by A. Osytsnjuk were largely unpublished, because of her tragic death in 1998. Some of these designations have been posthumously validated in subsequent publications (Osytsnjuk et al. 2005, 2008).

The present paper is the first complete, critically reviewed, illustrated summary of all species of the genus *Andrena* described by F. Morawitz from the collection of A. Fedtschenko, an invaluable reference for researchers across this region who otherwise could not easily assign names to these difficult bees.

## Materials and methods

All of the material listed below was examined for this study. In the following list, the taxa are treated in alphabetical order of the names used in the original descriptions. Each entry includes the name of the taxon in its original combination, the complete reference to the original description of the species (including the original combination and spelling of the name and the author, year, and page of the description) and a list of type specimens present in the collections of the Zoological Museum of the Moscow State University, Moscow (**ZMMU**) and Zoological Institute of the Russian Academy of Sciences, St. Petersburg (**ZISP**). The data from each label are separated by two slashes (/). Square brackets are used for English translations and when information is added to specimen label information (e.g., geographical coordinates) or published data (e.g., current name of an old place name; affiliation to a present-day country).

Photographs were made using a combination of a stereomicroscope Olympus SZX10 and a digital camera (Olympus OM-D). Illustrations were obtained by montaging from an image series that covers different focal planes into a single in-focus image with the program Helicon Focus 7. The final illustrations were post-processed for contrast and brightness using Adobe Photoshop software.

The classification and current species status mostly follow Gusenleitner and Schwarz (2002) and Pisanty et al. (2022), distribution follows Osytsnjuk et al. (2005, 2008), Proshchalykin et al. (2017), Wood and Monfared (2022), and Ascher and Pickering (2022). In the dating the publications of Morawitz’s paper, we follow Kerzhner (1984) and Ebmer (2021).

## Taxonomy

### List of species

#### Genus *Andrena* Fabricius, 1775

##### 1. *Andrena acutilabris* Morawitz, 1876

Fig. 1

*Andrena acutilabris* Morawitz, 1876: 165 (key), 175, ♀, ♂.

**Type locality.** Tashkent (Uzbekistan).

**Published (original) locality.** Uzbekistan: Tashkent, Urmitan.

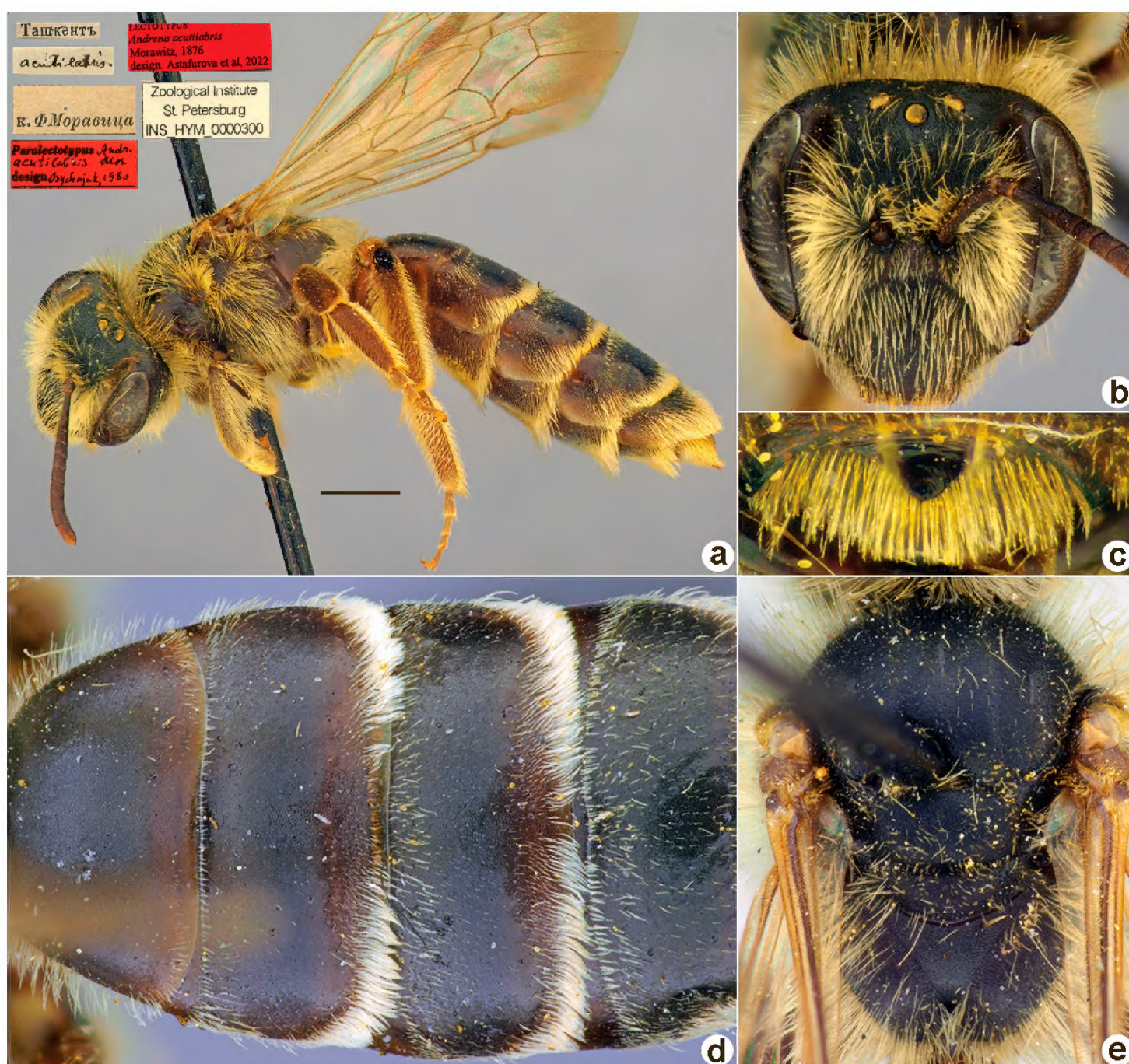


**Figure 1.** *Andrena acutilabris* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T4, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Lectotype (designated here).** ♀, Ташкентъ [Uzbekistan, Tashkent, 41°18'N, 69°16'E] // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // *acutilabris* [handwritten by F. Morawitz] // Paralectotypus *Andr. acutilabris* Mor., design. Osychnjuk, 1980 <red label> // Lectotypus *Andrena acutilabris* Morawitz, 1876, design. Astafurova et al., 2022 <red label> // Zoological Institute St. Petersburg INS\_HYM\_0000300 [ZISP].

**Paralectotypes (3 ♀, 10 ♂).** 2 ♀, 4 ♂, 2, 3, 8, 11[IV.1871] // Ташкентъ // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // *acutilabris* Mor. [handwritten by F. Morawitz] // Paralectotypus *Andrena acutilabris* Mor., design. Osychnjuk, 1980 <red label> [ZISP]; 6 ♂, 2., 5.[IV.1871] // Ташкентъ; 1 ♀, 11.[IV.1871] // Ташкентъ // Lectotypus Warncke 1975 // Paralectotypus *Andrena acutilabris* Morawitz, 1876, design. Astafurova et al., 2022 <identical red labels on each paralectotype specimen> [ZMMU].

**Current status.** *Andrena (Nobandrena) acutilabris* Morawitz, 1876.

**Distribution.** Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan.

## 2. *Andrena ahenea* Morawitz, 1876

Fig. 2

*Andrena ahenea* Morawitz, 1876: 164, 166 (key), 210, ♀, ♂.

**Type locality.** Samarkand (Uzbekistan).

**Published (original) locality.** Uzbekistan: Samarkand.

**Lectotype.** ♀, designated by Osychnjuk et al. 2008: 51, 16.[III.1869] // Самаркандъ [Uzbekistan, Samarkand, 39°39'N, 66°57'E] // *Andrena ahenea* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Lectotypus *Andrena ahenea* Morawitz, 1876, design. Osyshnjuk et al., 2008 <red label, labelled by Yu. Astafurova> [ZMMU].

**Paralectotype.** 1 ♂, 16.[III.1876] // Самаркандъ // Paralectotypus *Andrena ahenea* Morawitz, 1876, design. Osyshnjuk et al., 2008 <red label, labelled by Yu.Astafurova> [ZMMU].

**Current status.** *Andrena (Euandrena) ahenea* Morawitz, 1876.

**Distribution.** Uzbekistan.

## 3. *Andrena amoena* Morawitz, 1876

Fig. 3

*Andrena amoena* Morawitz, 1876: 164 (key), 211, ♀.

**Type locality.** Chardara (Kazakhstan).

**Published (original) locality.** Kazakhstan: Syr Darja River near Chardara.

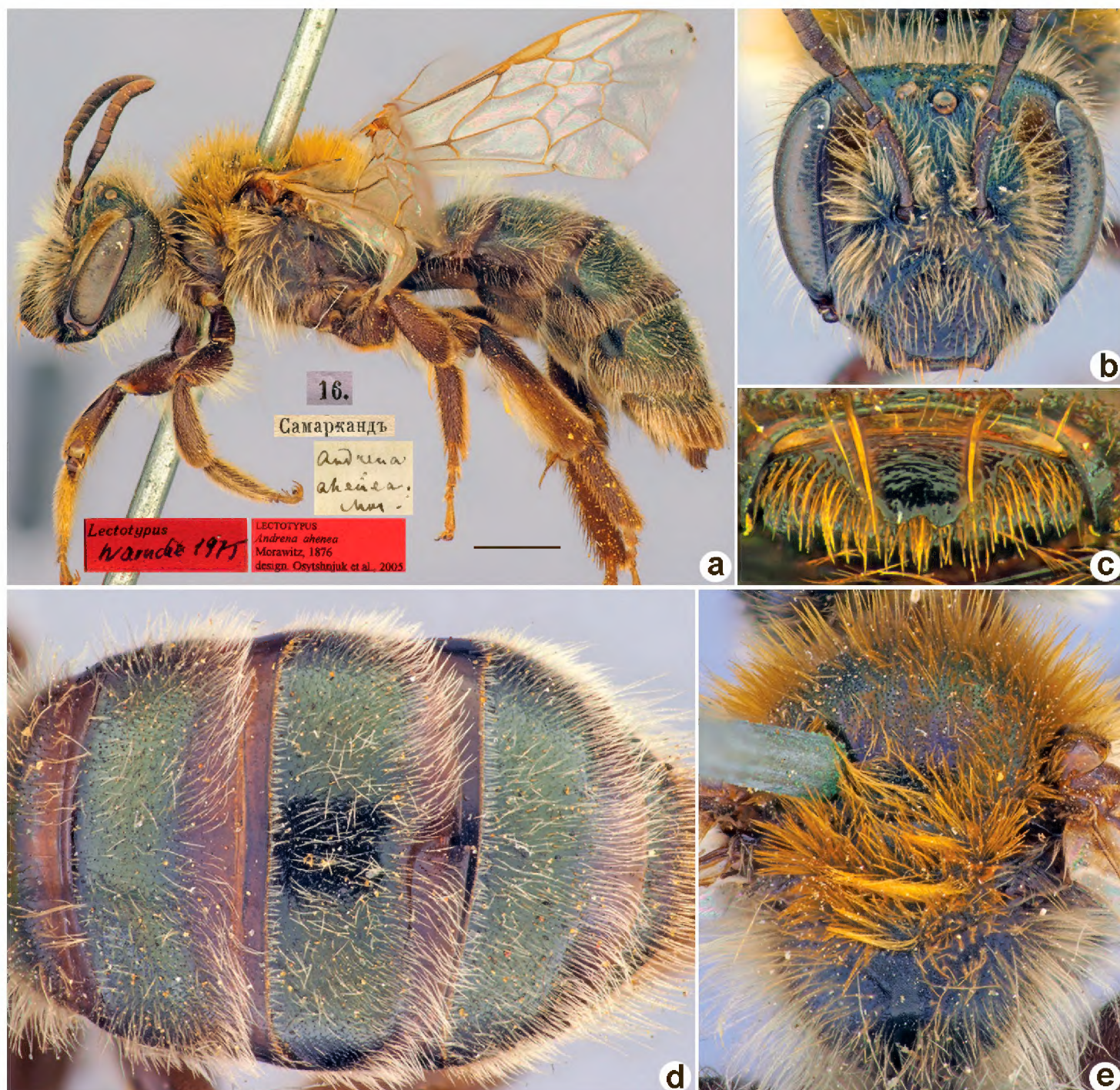


**Figure 2.** *Andrena ahenea* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Lectotype.** ♀, designated by Osytsnjuk et al. 2005: 67, 25.[IV.1871] // Чардара [Kazakhstan, Chardara, 41°18'N, 67°57'E] // *Andrena amoena* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Lectotypus *Andrena amoena* Morawitz, 1876, design. Osytsnjuk et al., 2005 <red label, labelled by Yu. Astafurova> [ZMMU].

**Paralectotypes** (3 ♀). 3 ♀, 25.[IV.1871] // Чардара [Chardara] // Paralectotypus *Andrena amoena* Morawitz, 1876, design. Osytsnjuk et al., 2005 <red label, labelled by Yu. Astafurova> [ZMMU].

**Current status.** *Andrena* (*Aciandrena*) *amoena* Morawitz, 1876 (according to Osytsnjuk et al. 2005: 67).

**Remarks.** Description of male: Gusenleitner and Schwarz 2001: 99, fig. 1.

**Distribution.** Turkmenistan, Uzbekistan, Tajikistan.

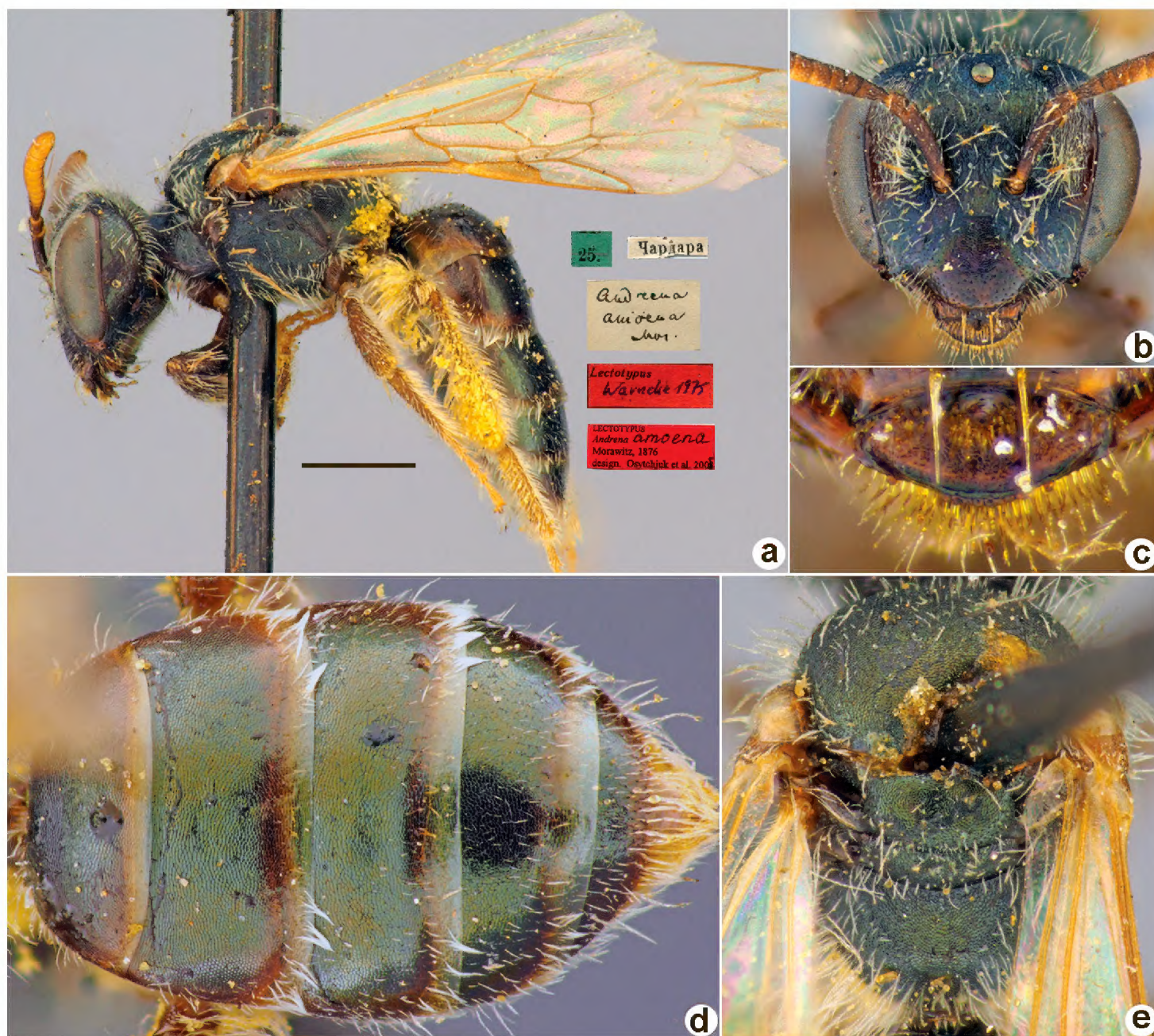


**Figure 3.** *Andrena amoena* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

#### 4. *Andrena arenaria* Morawitz, 1876

Fig. 4

*Andrena arenaria* Morawitz, 1876: 201, ♂.

**Type locality.** Central Asia.

**Published (original) locality.** “Turkestan”.

**Holotype.** ♂, 487. // Туркест.[анский] кр.[ай] [Turkestan] // *Andrena arenaria* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Holotypus *Andrena arenaria* Morawitz, 1876 <red label, labelled by Yu. Astafurova> // *Andrena lateralis*, D.A. Sidorov det. 2022 [ZMMU].

**Current status.** *Andrena* (incertae sedis) *lateralis* Morawitz, 1876 (synonymised by Gusenleitner and Schwarz 2001: 135).

**Distribution.** Europe, Russia (to East Siberia), Caucasus, Turkey, Israel, Iran, Afghanistan, Central Asia.

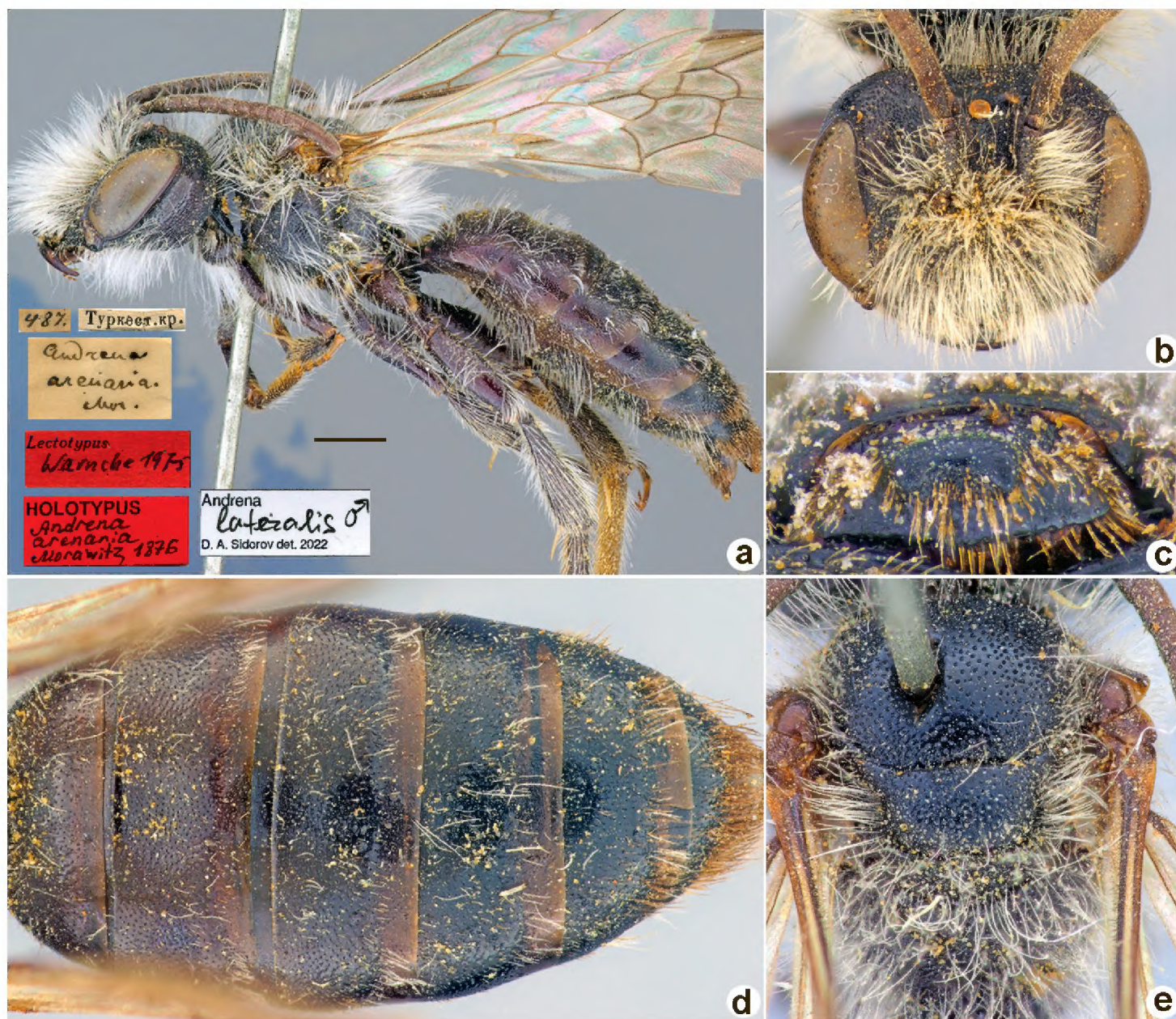


**Figure 4.** *Andrena arenaria* Morawitz, 1876, holotype, male **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

## 5. *Andrena aulica* Morawitz, 1876

Fig. 5

*Andrena aulica* Morawitz, 1876: 162, 166 (key), 187, ♀, ♂.

**Type locality.** Panjakent (Tajikistan).

**Published (original) locality.** Uzbekistan: Tashkent, Samarkand, Oalyk Gorge; Tajikistan: Panjakent, Fan [River], Varzaminor [= Ayni], Iori Gorge.

**Lectotype (designated here).** ♀, Пянджикентъ [Tajikistan, Panjakent, 39°30'N, 67°36'E] // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // *Andrena aulica* Morawitz, ♀ [handwritten by F. Morawitz] // Paralectotypus *Andr. aulica* F. Mor., design. Osychnjuk, 1980 <red label> // Lectotypus *Andrena aulica* Morawitz, 1876, design. Astafurova et al., 2022 // Zoological Institute St. Petersburg INS\_HYM\_0000299 [ZISP].

**Paralectotypes (21 ♀, 3 ♂).** 1 ♂, <golden circle> // Варзаминоръ // *aulica* Mor. Тип. ♂ [handwritten by F. Morawitz] // *Andr. ferghanica* F. Mor, ♂, Popov det, 1936; 1 ♀, Заравш. дол. // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // *aulica*

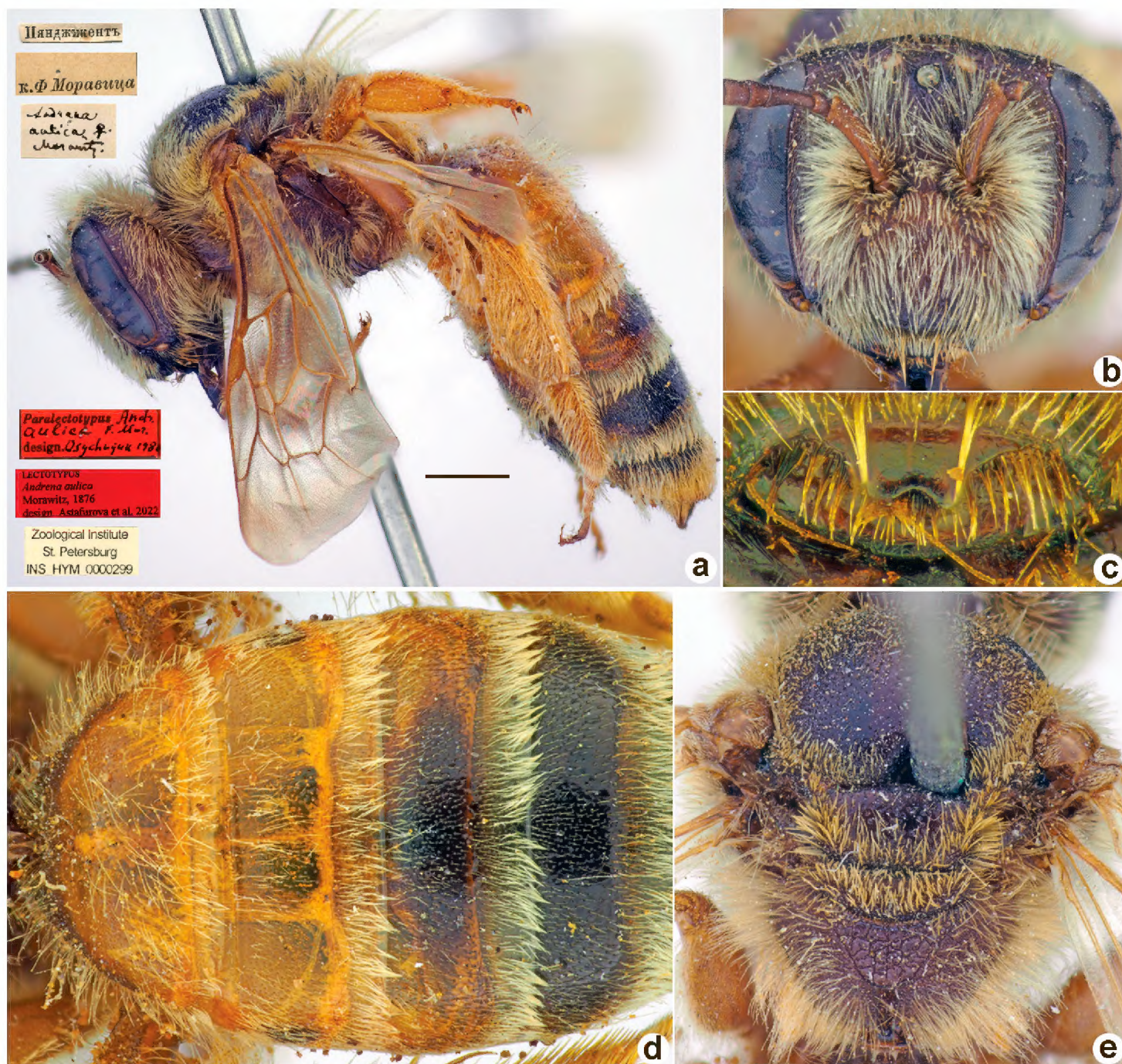


**Figure 5.** *Andrena aulica* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T4, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

Mor. [handwritten by F. Morawitz]; Paralectotypus *Andrena aulica* Mor., design. Osychnjuk, 1980 <identical red labels on each paralectotype specimen> [ZISP]; 4 ♀, 8.[IV.1871] // Ташкентъ; 9 ♀, 20., 21., 23., 26., 30.[III], 9.[V.1869] // Самаркандъ; 3 ♀, 28., 29.[IV.1869] // Пянджикентъ; 1 ♀, 12.[VI.1870] // Фанъ; 2 ♀, 7.[VI.1870] // Варзаминоръ; 1 ♀, 2 ♂, 25.[III], 2., 7.[V.1869] // Заравш. дол. // Paralectotypus *Andrena aulica* Morawitz, 1876, design. Astafurova et. al., 2022 <identical red labels on each paralectotype specimen> [ZMMU].

There is one female specimen labelled by Warcke as “Lectotype” [31. // Заравш. дол. // *Andrena aulica* Mor. Typ. [handwritten by F. Morawitz] // Lectotypus Warncke 1975; ZMMU]. However, the label date (31.[II.1869]) does not correspond any date mentioned for type series by Morawitz (1876).

**Current status.** *Andrena (Plastandrena) aulica* Morawitz, 1876.

**Remarks.** According to Warncke (1967: 179) and Gusenleitner and Schwarz (2002: 130) *A. aulica* Morawitz, 1876 is a junior synonym of *A. bimaculata* (Kirby, 1802). However, Popov (1949), Osytshnjuk et al. (1978) and Astafurova et al. (2021) regarded *A. aulica* as a valid species. Taxonomic status of *A. bimaculata* sensu lato is problematic and requires a revision.

**Distribution.** Russia (European part), Caucasus, Iran, Central Asia, India.

## 6. *Andrena bairacumensis* Morawitz, 1876

Fig. 6

*Andrena bairacumensis* Morawitz, 1876: 164 (key), 170, ♀.

**Type locality.** Bairkum (Kazakhstan).

**Published (original) locality.** Kazakhstan: Bayrakum [= Bairkum].

**Holotype.** ♀, 4.[V.1871] // Байракумъ [Kazakhstan, Syr-Darya River, Bairkum, 42°05'N, 68°10'E] // *Andrena bairacumensis* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Holotypus *Andrena bairacumensis* Mor., 1876 <red label, labelled by Yu. Astafurova> [ZMMU].

**Current status.** *Andrena (Leimelissa) bairacumensis* Morawitz, 1876.

**Remarks.** Description of male: Osytshnjuk 1984: 21, fig. 1.

**Distribution.** Kazakhstan.

## 7. *Andrena bicarinata* Morawitz, 1876

Fig. 7

*Andrena bicarinata* Morawitz, 1876: 164 (key), 197, ♀.

**Type locality.** Tashkent (Uzbekistan).

**Published (original) locality.** Uzbekistan: Tashkent, Katty-Kurgan, Urmitan [near Katty-Kurgan]; Tajikistan: Panjakent.

**Lectotype (designated here).** ♀, 11.[IV.1871] // ТАШКЕНТЪ [Uzbekistan, Tashkent, 41°18'N, 69°16'E] // *Andrena bicarinata* Mor. [handwritten by F. Morawitz] // Paralectotypus *Andrena bicarinata* Mor., design. Osytshnjuk, 1980 <red label> // *Andrena tuberculiventris* Mor. A. Osytshnjuk det. // Lectotypus *Andrena bicarinata* Morawitz, 1876, design. Astafurova et al., 2022 <red label> // Zoological Institute St. Petersburg INS\_HYM\_0000298 [ZISP].

**Paralectotypes (5 ♀, 1 ♂).** 1 ♀, 2.[IV.1871] // ТАШКЕНТЪ // к.[ОЛЛЕКЦИЯ] Ф. Моравица [Collection of F. Morawitz] // *Andrena bicarinata* Mor. [handwritten by F. Morawitz] // Paralectotypus *Andrena bicarinata* Mor., design. Osytshnjuk, 1980 < red label > // *Andrena tuberculiventris*, D.A. Sidorov det.; 1 ♀, 5.[IV.1871] // к.[ОЛЛЕКЦИЯ]



**Figure 6.** *Andrena bairacumensis* Morawitz, 1876, holotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T3, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

Ф. Моравица [Collection of F. Morawitz] // *Andrena bicarinata* F.Mor, Cotype!, F. Morawitz det. // *Andrena tuberculiventris*, D.A. Sidorov det. [ZISP]; 1 ♀, 5.[V.1871] // Урмитань [Urmitan] // Lectotypus Warncke 1975 <red label> // *A. tuberculiventris* [det. A.Osytsnjuk]; 1 ♂, 5.[IV.1871] // Ташкентъ [Tashkent] // *Andrena tuberculiventris*, D.A. Sidorov det.; 1 ♀, 29.[VI.1869] // Katty-Kurgan // *Andrena tuberculiventris*, D.A. Sidorov det.; 1 ♀, 2.[V.1871] // Урмитань [Urmitan] // *Andrena tuberculiventris*, D.A. Sidorov det. // Paralectotypus *Andrena bicarinata* Morawitz, 1876, design. Astafurova et al., 2022 <identical red labels on each paralectotype specimen> [ZMMU].

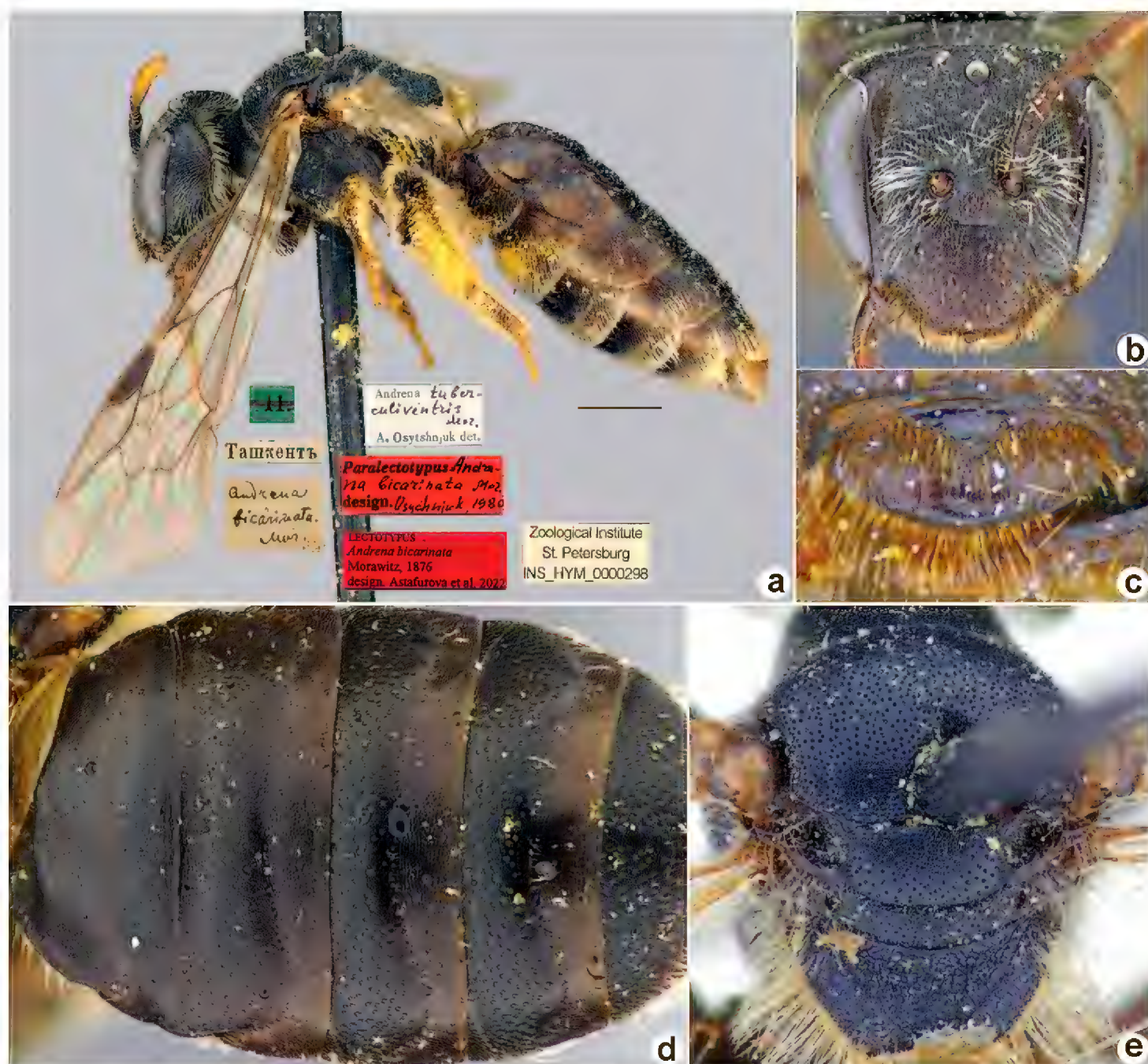


**Figure 7.** *Andrena bicarinata* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T5, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Current status.** *Andrena* (*Parandrenella*) *tuberculiventris* Morawitz, 1876 (synonymised by Popov 1958: 118).

**Distribution.** Uzbekistan, Tajikistan.

## 8. *Andrena capillosa* Morawitz, 1876

Fig. 8

*Andrena capillosa* Morawitz, 1876: 163 (key), 205, ♀.

**Type locality.** Samarkand (Uzbekistan).

**Published (original) locality.** Uzbekistan: Samarkand.

**Lectotype.** ♀, designated by Osytshnjuk et al. 2008: 49, ♀, 23.[II.1869] // Самаркандъ [Uzbekistan, Samarkand, 39°39'N, 66°57'E] // *Andrena capillosa* Mor.



**Figure 8.** *Andrena capillosa* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T3, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

[handwritten by F. Morawitz] // Lectotypus Warncke 1975 // Lectotypus *Andrena capillosa* Morawitz, 1876, design. Osytsnjuk et al., 2008 <red label, labelled by Yu. Astafurova> [ZMMU].

**Paralectotypes (5 ♀).** 1 ♀, <golden circle>, 27.[II.1869] // Самаркандъ // *capillosa* Mor. Typ. [handwritten by F. Morawitz]; 4 ♀, 27.[II.1869], 3., 4.[III.1869] // Самаркандъ // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // Paralectotypus *Andrena capillosa* Mor., design. Osychnjuk, 1980 <identical red labels on each paralectotype specimen> [ZISP].

**Current status.** *Andrena (Euandrena) capillosa* Morawitz, 1876.

**Remarks.** Description of male: Osytsnjuk et al. 2008: 50.

**Distribution.** Uzbekistan, Tajikistan, Kazakhstan. The record from Russia (Western Siberia) by Krainov (2013) is doubtful.

**9. *Andrena carinifrons* Morawitz, 1876**

Fig. 9

*Andrena carinifrons* Morawitz, 1876: 164 (key), 198, ♀.

**Type locality.** Turkistan Province (Kazakhstan).

**Published (original) locality.** Kazakhstan: between the Karak Mts and Bairkum.

**Lectotype.** ♀, designated by Osytsnjuk et al. 2005: 161, Туркест.[анский] кр.[ай] [Kazakhstan, Turkistan Province, ≈ 42°46'N, 67°24'E] // к.[оллекция] Ф.



**Figure 9.** *Andrena carinifrons* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1-T4, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

Моравица [Collection of F. Morawitz] // *Andrena carinifrons* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Lectotypus *Andrena carinifrons* Morawitz, 1876 design. by Osytchjuk et al., 2005 <red label, labelled by Yu. Astafurova> // Zoological Institute St. Petersburg INS\_HYM\_0000200.

**Current status.** *Andrena* (*Carinandrena*) *carinifrons* Morawitz, 1876.

**Remarks.** Description of male: Osytshnjuk 1993: 18, figs 2, 3.

**Distribution.** Turkmenistan, Uzbekistan, Kazakhstan.

## 10. *Andrena combusta* Morawitz, 1876

Fig. 10

*Andrena combusta* Morawitz, 1876: 163, 165 (key), 189, ♀, ♂.

**Type locality.** Kattakurgan (Uzbekistan).

**Published (original) locality.** Uzbekistan: Tashkent and near Kattakurgan.

**Lectotype (designated here).** ♀, 29. [IV.1869] // Верхн.[ий] Заравш.[ан] [Uzbekistan, Upper Zaravshan, near Kattakurgan, 39°53'N, 66°15'E] // *Andrena combusta* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke, 1975 <red label> // Lectotypus *Andrena combusta* Morawitz, 1876, design. Astafurova et al., 2022 <red label> [ZMMU].

**Paralectotypes (1 ♀, 1 ♂).** 1 ♀, 29. [IV.1869] // Верхн. Заравш. [Upper Zaravshan]; 1 ♂, 11.[IV.1871] // Ташкентъ // Paralectotypus *Andrena combusta* Morawitz, 1876, design. Astafurova et al., 2022 <identical red labels on each paralectotype specimen> [ZMMU].

**Current status.** *Andrena* (*Truncandrena*) *combusta* Morawitz, 1876.

**Distribution.** Azerbaijan, Turkey, Syria, Iran, Afghanistan, Uzbekistan, Tajikistan.

## 11. *Andrena comparata* Morawitz, 1876

Fig. 11

*Andrena comparata* Morawitz, 1876: 166 (key), 188, ♂.

**Type locality.** Tashkent (Uzbekistan).

**Published (original) locality.** Uzbekistan: Tashkent and Samarkand.

**Lectotype (designated here).** ♂, 9.[III.1871] // Ташкентъ [Uzbekistan, Tashkent, 41°18'N, 69°16'E] // *Andrena comparata* Mor. [handwritten by F. Morawitz] // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // *Andr. aulica* F. Mor, ♂, Popov 1936 det. // Paralectotypus *Andr. comparata* Mor., design. Osytshnjuk, 1980 <red label> // Lectotypus *Andrena comparata* Morawitz, 1876, design. Astafurova et al., 2022 <red label> // Zoological Institute St. Petersburg INS\_HYM\_0000297 [ZISP].



**Figure 10.** *Andrena combusta* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Paralectotypes** (9 ♂). 1 ♂, <golden circle>, 21.[III.1869] // Самаркандъ [Samarkand] // *Andrena comparata* Mor. Typ. [handwritten by F. Morawitz] // *Andr. aulica* F.Mor, ♂, Popov det. 1936 // Paralectotypus *Andrena comparata* Mor., design. Osychnjuk, 1980 <red label> [ZISP]; 1 ♂, 21.[III.1869] // Самаркандъ // *Andrena comparata* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // *Andrena aulica*, D.A. Sidorov det., 2022; 7 ♂, 21., 26., 30.[III.1869] // Самаркандъ // Paralectotypus *Andrena comparata* Morawitz, 1876, design. Astafurova et al., 2022 <identical red labels on each paralectotype specimen> [ZMMU].

**Current status.** *Andrena* (*Plastandrena*) *aulica* Morawitz, 1876 (synonymised by Popov 1949: 392).

**Remarks.** Listed as *Andrena* (*Plastandrena*) *bimaculata* (Kirby, 1802) by Gusenleitner and Schwarz 2002: 130 (see remarks on *Andrena aulica*, above).

**Distribution.** Russia (European part), Caucasus, Iran, Central Asia, India.



**Figure 11.** *Andrena comparata* Morawitz, 1876, lectotype, male **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

## 12. *Andrena corallina* Morawitz, 1876

Fig. 12

*Andrena corallina* Morawitz, 1876: 162 (key), 203, ♀.

**Type locality.** Urmetan (Tajikistan).

**Published (original) locality.** Tajikistan: Urmitan.

**Lectotype (designated here).** ♀, 2.[V.1869] // Урмитанъ [Tajikistan, Urmetan, 39°26'N, 68°15'E] // *Andrena corallina* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 // Lectotypus *Andrena corallina* Morawitz, 1876, design. Astafurova et al., 2022 <red label> [ZMMU].

**Current status.** *Andrena* (*Trachandrena*) *discophora* Morawitz, 1876 (synonymised by Popov 1958: 159).



**Figure 12.** *Andrena corallina* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T3, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Distribution.** Uzbekistan, Tajikistan, Kazakhstan.

### 13. *Andrena discophora* Morawitz, 1876

Fig. 13

*Andrena discophora* Morawitz, 1876: 162, 166 (key), 202, ♀, ♂.

**Type locality.** Tashkent (Uzbekistan).

**Published (original) locality.** Uzbekistan: Tashkent.



**Figure 13.** *Andrena discophora* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Lectotype (designated here).** ♀, 8.[IV.1871] // Ташкентъ [Uzbekistan, Tashkent, 41°18'N, 69°16'E] // *Andrena discophora* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Lectotypus *Andrena discophora* Morawitz, 1876, design. Astafurova et al., 2022 <red label> [ZMMU].

**Paralectotypes (21 ♀, 9 ♂).** 1 ♂, <golden circle> // 28.[II.1871] // Ташкентъ // *discophora* Mor. ♂, Typ. [handwritten by F. Morawitz]; 1 ♀, 4 ♂, Ташкентъ // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // *Andrena discophora* Mor. [handwritten by F. Morawitz]; 1 ♀, <golden circle> // 11.[IV.1871] // Ташкентъ // *discophora* Mor. ♀, Typ. [handwritten by F. Morawitz]; 2 ♀, 8.[IV.1871] and 27.[III.1987] // Ташкентъ // к.[оллекция] Ф. Моравица [Collection of F. Morawitz]; 1 ♀, 11.[IV.1981] // Ташкентъ // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // *Andr. discophora* F. Mor., Popov det. // Paralectotypus *Andrena* Mor., design. Osychnjuk, 1980 <identical red labels on each paralectotype specimen> [ZISP]; 16 ♀, 4 ♂, [28.II–11.IV.1871] // Ташкентъ // Paralectotypus *Andrena discophora* Morawitz, 1876, design. Astafurova et al., 2022 <identical red labels on each paralectotype specimen> [ZMMU].

**Current status.** *Andrena* (*Trachandrena*) *discophora* Morawitz, 1876.

**Distribution.** Uzbekistan, Tajikistan, Kazakhstan.

#### 14. *Andrena fedtschenkoi* Morawitz, 1876

Fig. 14

*Andrena Fedtschenkoi* Morawitz, 1876: 162, 165 (key), 184, ♀, ♂.

**Type locality.** Chardara (Kazakhstan).

**Published (original) locality.** Kazakhstan: Kysyl-Kum [desert] near draw-well Chakany, Karak steppe, Chardara; Uzbekistan: Zeravshan River valley.

**Lectotype (designated here).** ♀, Чардара [Kazakhstan, Chardara, 41°18'N, 67°57'E] // *Andrena Fedtschenkoi* Mor. [handwritten by F. Morawitz] // к.[оллекция] Ф. Моравица



**Figure 14.** *Andrena fedtschenkoi* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

[Collection of F. Morawitz] // Paralectotypus *Andrena fedtschenkoi* Mor., design. Osychnjuk, 1980 <red label> // Lectotypus *Andrena fedtschenkoi* Morawitz, 1876, design. Astafurova et al., 2022 <red label> // Zoological Institute St. Petersburg INS\_HYM\_0000296.

**Paralectotypes** (7 ♀, 11 ♂). 1 ♀, Кизилъкум [Kyzylkum] // к.[ОЛЛЕКЦИЯ] Ф. Моравица [Collection of F. Morawitz] // *fedtschenkoi* F. Morawitz, ♀ [handwritten by F. Morawitz]; 3 ♂, Чардара // к.[ОЛЛЕКЦИЯ] Ф. Моравица [Collection of F. Morawitz] // *Andrena Fedtschenkoi* Mor. [handwritten by F. Morawitz]; 1 ♂, 25.[IV.1869] // Заравшан.[ская] дол.[ина] [Zeravshan River valley] // *fedtschenkoi* F. Morawitz, ♂ Тип. [handwritten by F. Morawitz] // Paralectotypus *Andrena fedtschenkoi* Mor., design. Osychnjuk, 1980 <red label> [ZISP]; 1 ♀, 28.[IV.1871] // Кизилъкум // *Andrena Fedtschenkoi* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label>; 4 ♀, 4 ♂, 25.[IV.1869], 12., 13., 18., 23.[V.1869] // Заравш. дол.; 3 ♂, 25.[IV.1871] // Чардара; 1 ♀, 5.[V.1871] // Карак.[ская] степь [Karak steppe] // Paralectotypus *Andrena fedtschenkoi* Morawitz, 1876, design. Astafurova et al., 2022 <identical red labels on each paralectotype specimen> [ZMMU].

**Current status.** *Andrena (Ulandrena) fedtschenkoi* Morawitz, 1876.

**Distribution.** Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan.

## 15. *Andrena ferghanica* Morawitz, 1876

Fig. 15

*Andrena ferghanica* Morawitz, 1876: 163 (key), 189, ♀.

**Type locality.** Alai Mts, Kavuk Pass (Kyrgyzstan).

**Published (original) locality.** Kyrgyzstan: Kavuk Pass.

**Holotype.** ♀, 24.[VI.1871] // Алай [Kyrgyzstan, Alay Mts, Kavuk Pass, 39°40'N, 72°15'E] // к.[ОЛЛЕКЦИЯ] Ф. Моравица [Collection of F. Morawitz] // *Andrena ferghanica* Morawitz [handwritten by F. Morawitz] // Lectotypus *Andrena ferghanica* Mor., design. Osychnjuk, 1980 <red label> // Holotypus *Andrena ferghanica* Mor., 1876 <red label, labelled by Yu. Astafurova> // Zoological Institute St. Petersburg INS\_HYM\_0000261 [ZISP].

**Current status.** *Andrena (Plastandrena) ferghanica* Morawitz, 1876.

**Remarks.** Description of male: Morawitz 1876: 187 as *A. aulica*, in partim (according to Popov 1949: 391).

**Distribution.** Iran, Pakistan, Central Asia.

## 16. *Andrena flavitarsis* Morawitz, 1876

Fig. 16

*Andrena flavitarsis* Morawitz, 1876: 163, 166 (key), 204, ♀, ♂.

**Type locality.** Tashkent (Uzbekistan).



**Figure 15.** *Andrena ferghanica* Morawitz, 1876, holotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T4, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Published (original) locality.** Uzbekistan: Tashkent.

**Lectotype.** ♀, designated by Osytsnjuk et al. 2008: 47, 3.[IV.1871] // Ташкентъ [Uzbekistan, Tashkent, 41°18'N, 69°16'E] // *Andrena flavitarsis* Mor. ♀ [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Lectotypus *Andrena flavitarsis* Morawitz, 1876, design. Osytsnjuk et al., 2008 <red label, labelled by Yu. Astafurova> [ZMMU].

**Paralectotypes** (1 ♀, 1 ♂). 1 ♀, 5.[IV.1871] // Ташкентъ [Tashkent] // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // *Andrena flavitarsis* Mor. [handwritten by F. Morawitz] // *Andrena flavitarsis* Mor., design. Osychnjuk, 1980 < red label > [ZISP]; 1 ♂, 16.[III.1871] // Ташкентъ [Tashkent] // *Andrena flavitarsis* Mor. [handwritten by F. Morawitz] // Paralectotypus *Andrena flavitarsis* Morawitz, 1876, design. Osytsnjuk et al., 2008 <red label, labelled by Yu. Astafurova> [ZMMU].

**Current status.** *Andrena* (*Euandrena*) *flavitarsis* Morawitz, 1876.

**Distribution.** Uzbekistan.



**Figure 16.** *Andrena flavitarsis* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T3, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

### 17. *Andrena fuscicollis* Morawitz, 1876

Fig. 17

*Andrena fuscicollis* Morawitz, 1876: 164, 165 (key), 208, ♀, ♂.

**Type locality.** Tashkent (Uzbekistan).

**Published (original) locality.** Uzbekistan: Tashkent.

**Lectotype.** ♂, designated by Osytshnjuk et al. 2008: 73, 11.[IV.1871] // Ташкентъ [Uzbekistan, Tashkent, 41°18'N, 69°16'E] // *Andrena fuscicollis* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Lectotypus *Andrena fuscicollis*

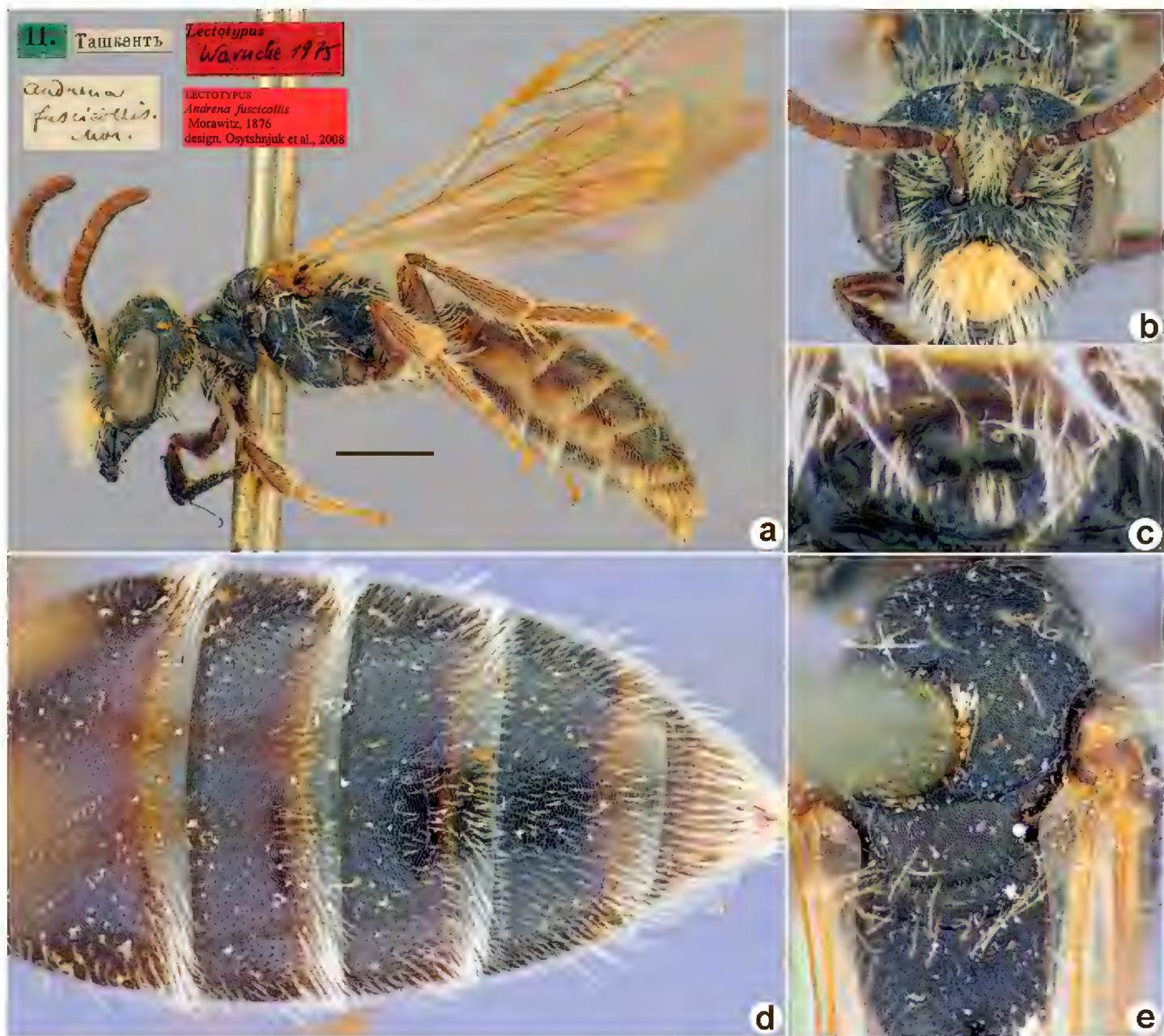


**Figure 17.** *Andrena fuscicollis* Morawitz, 1876, lectotype, male **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

Morawitz, 1876, design. Osytshnjuk et al., 2008 <red label, labelled by Yu. Astafurova> [ZMMU].

**Paralectotypes** (5 ♀, 5 ♂). 1 ♂, <golden circle>, 1.[IV.1871] // Ташкентъ // *fuscicollis* Mor. ♂ [handwritten by F. Morawitz]; 4 ♂, 5., 10.[IV.1871] // Ташкентъ // к.[оллекция] Ф. Моравица [Collection of F. Morawitz]; 1 ♀, <golden circle>, 10.[IV.1871] // Ташкентъ // *fuscicollis* Mor. Typ., ♀ [handwritten by F. Morawitz] // Paralectotypus *Andrena fuscicollis* Mor., design. Osytshnjuk, 1980 <identical red labels on each paralectotype specimen> [ZISP]; 4 ♀, 1., 10., 11.[IV.1871] Ташкентъ // Paralectotypus *Andrena fuscicollis* Morawitz, 1876, design. Osytshnjuk et al., 2008 <identical red labels on each paralectotype specimen, labelled by Yu. Astafurova> [ZMMU].

**Current status.** *Andrena (Fuscandrena) fuscicollis* Morawitz, 1876.

**Remarks.** The collection date in the original publication is “from 11 February to 11 March”. However, the lectotype and paralectotype specimens designated by A. Osytshnjuk are labelled as collected in April [green label]. Probably “March” was mistakenly mentioned in the Morawitz’ publication instead of April.

**Distribution.** Turkmenistan, Uzbekistan, Tajikistan.

# 18. *Andrena hieroglyphica* Morawitz, 1876

Fig. 18

*Andrena hieroglyphica* Morawitz, 1876: 163 (key), 192, ♀.

**Type locality.** Sokh Enclave (Uzbekistan).

**Published (original) locality.** Uzbekistan: near Sokh.

**Holotype.** ♀, 28.[VI.1871] // Сохъ [Uzbekistan, Sokh Enclave, 39°57'N, 71°07'E] // *Andrena hieroglyphica* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Holotypus *Andrena hieroglyphica* Mor., 1876 <red label, labelled by Yu. Astafurova> [ZMMU].

**Current status.** *Andrena* (incertae sedis) *hieroglyphica* Morawitz, 1876.

**Remarks.** Description of male: Morawitz 1876: 204, as *Andrena temporalis* Morawitz, 1876 (synonymised by Osytshnjuk 1984: 3).



**Figure 18.** *Andrena hieroglyphica* Morawitz, 1876, holotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T3, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

The lectotype designation by Osytshnjuk et al. (2005: 151) is unnecessary as the species was described from a single male that was directly written about by Morawitz (1876: 192).

**Distribution.** Iran, Turkmenistan, Uzbekistan, Tajikistan, Pakistan.

**19. *Andrena infirma* Morawitz, 1876**

Fig. 19

*Andrena infirma* Morawitz, 1876: 164, 166 (key), 195, ♀, ♂.

**Type locality.** Ayni (Tajikistan).



**Figure 19.** *Andrena infirma* Morawitz, 1876, lectotype, male **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T3, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Published (original) locality.** Tajikistan: Varzaminor, near Iskander-Kul Lake; Kyrgyzstan/Tajikistan: Khodzha-Chiburgan River.

**Lectotype.** ♂, designated by by Osytshnjuk et al. 2008: 199, 8.[VI.1869] // Варзаминоръ [Tajikistan, Varzaminor (= Ayni), 39°23'N, 68°32'E] // *Andrena infirma* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Lectotypus *Andrena infirma* Morawitz, 1876, design. Osytshnjuk et al., 2008 <red label, labelled by Yu. Astafurova> [ZMMU].

**Paralectotypes (1 ♀, 4 ♂).** 1 ♂, 8.[VI.1870] // Варзаминоръ // к.[оллекция] Ф. Моравица [Collection of F. Morawitz]; 1 ♂, <golden circle> // 21.[VI.1870] // Искандеръ [Iskander] // *infirma* Mor. Typ. [handwritten by F. Morawitz]; 1 ♂, 21.[VI.1870] // Искандеръ // *Andrena infirma* Mor. [handwritten by F. Morawitz] // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // Paralectotypus *Andrena infirma* Mor., design. Osytshnjuk, 1980 <identical red labels on each paralectotype specimen> [ZISP]; 1 ♀ [without head], 9.[VI.1869] // Варзаминоръ // Федченко [Fedtschenko leg.]; 1 ♂, 26.[VI.1871] // Чиѣбурганъ [Khodzha-Chiburgan River] // Paralectotypus *Andrena infirma* Morawitz, 1876., design. Osytshnjuk et al., 2008 <red label, labelled by Yu. Astafurova> [ZMMU].

**Current status.** *Andrena (Melandrena) infirma* Morawitz, 1876.

**Remarks.** Osytshnjuk et al. (2008: 199) mistakenly mentioned sex of the lectotype as a female instead of male.

**Distribution.** Afghanistan, Central Asia.

## 20. *Andrena initialis* Morawitz, 1876

Fig. 20

*Andrena initialis* Morawitz, 1876: 164, 166 (key), 199, ♀, ♂.

**Type locality.** Shardara District (Kazakhstan).

**Published (original) locality.** Kazakhstan: “between Keles [River] and Kosaral [Lake]”.

**Lectotype (designated here).** ♀, 24.[IV.1871] // Косаралъ [Kazakhstan, “Kosaral Lake” (now Shardara Reservoir), ≈ 41°10'N, 68°06'E] // *Andrena initialis* Mor. [handwritten by F. Morawitz] // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // Paralectotypus *Andrena initialis* Mor., design. Osytshnjuk, 1980 // Lectotypus *Andrena initialis* Morawitz, 1876, design. Astafurova et al., 2022 <red label> // Zoological Institute St. Petersburg INS\_НУМ\_0000295.

**Paralectotypes (3 ♀, 1 ♂).** 1 ♀, Косаралъ // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // Paralectotypus *Andrena initialis* Mor., design. Osytshnjuk, 1980 [ZISP]; 1 ♀, 24.[IV.1871] // Косаралъ // *Andrena initialis* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975; 1 ♀, 24.[IV.1871] // Косаралъ; 1 ♂, 24.[IV.1871] // Косаралъ // *Andrena lateralis*, D.A. Sidorov det., 2022 // Paralectotypus *Andrena initialis* Morawitz, 1876, design. Astafurova et al., 2022 <identical red labels on each paralectotype specimen> [ZMMU].

**Current status.** *Andrena* (incertae sedis) *initialis* Morawitz, 1876.

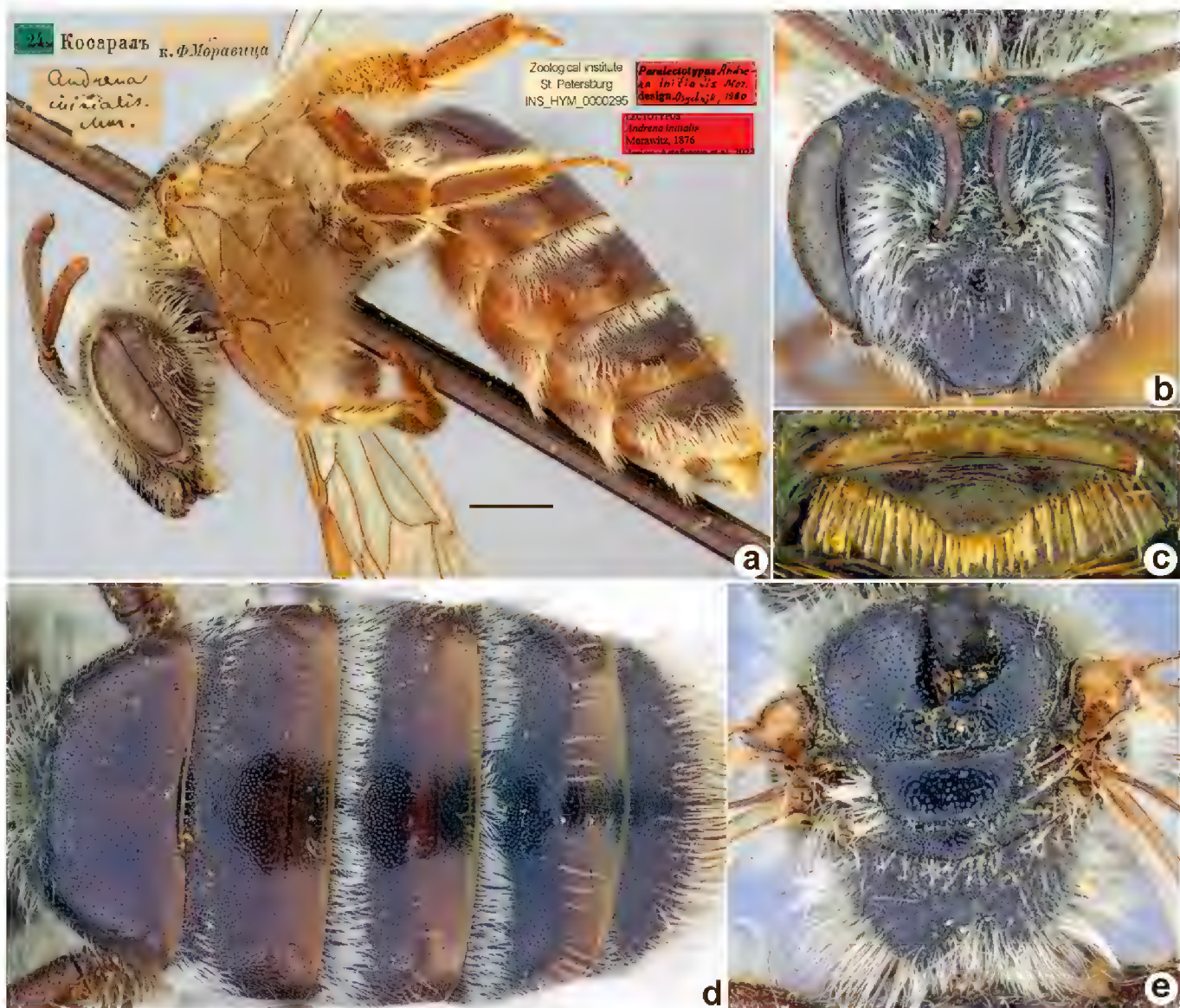


**Figure 20.** *Andrena initialis* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Remarks.** Male unknown. The single male from the type series belongs to *Andrena* (incertae sedis) *lateralis* Morawitz, 1876, as was mentioned by Gusenleitner and Schwarz (2001: 133).

**Distribution.** Uzbekistan, Kazakhstan.

## 21. *Andrena laeviventris* Morawitz, 1876

Fig. 21

*Andrena laeviventris* Morawitz, 1876: 163 (key), 182, ♀.

**Type locality.** Obburdon (Tajikistan).

**Published (original) locality.** Uzbekistan: Gus [near Urgut]; Tajikistan: Pyandzhikent, Obburden [Obburdon].

**Lectotype (designated here).** ♀, 4.[VI.1870] // Оббурденъ [Tajikistan, Obburdon, 40°25'N, 69°18'E] // *Andrena laeviventris* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Lectotypus *Andrena laeviventris* Morawitz, 1876, design. Astafurova et al., 2022 <red label> [ZMMU].

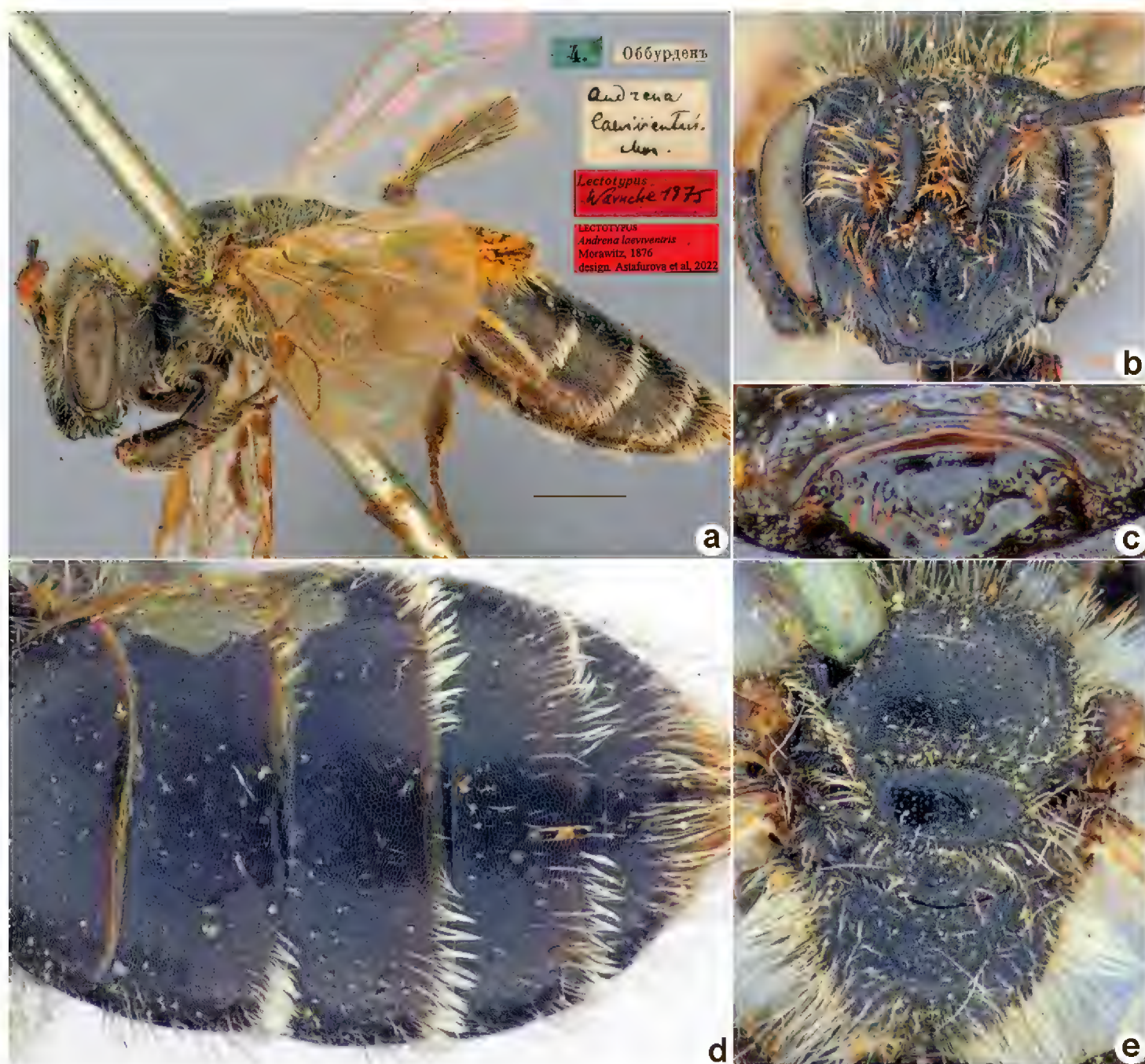


**Figure 21.** *Andrena laeviventris* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Paralectotype.** 1 ♀, 24.[V.1869] // Заравш. [анская] дол. [ина] [Zaravshan River Valley] // Paralectotypus *Andrena laeviventris* Morawitz, 1876, design. Astafurova et al., 2022 <red label> [ZMMU].

**Current status.** *Andrena* (*Aciandrena*) *laeviventris* Morawitz, 1876.

**Remarks.** Male unknown (according to Gusenleitner and Schwarz 2002: 410).

**Distribution.** Uzbekistan, Tajikistan.

## 22. *Andrena lateralis* Morawitz, 1876

Fig. 22

*Andrena lateralis* Morawitz, 1876: 163, 166 (key), 200, ♀, ♂.

**Type locality.** Shardara District (Kazakhstan).



**Figure 22.** *Andrena lateralis* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T3, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Published (original) locality.** Kazakhstan: “between Keles [River] and Kosaral [Lake]”, Kyzyl-Kum [desert]; Uzbekistan: Urmitan [near Katty-Kurgan]; Tajikistan: Varzaminor [Ayni], near Obburden [Obburdon].

**Lectotype.** ♀, designated by by Osytshnjuk et al. 2005: 144, 24.[VI.1871] // Косараль [Kazakhstan, “Kosaral Lake” (now Shardara Reservoir), ≈ 41°10'N, 68°06'E] // *Andrena lateralis* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Lectotypus *Andrena lateralis* Morawitz, 1876., design. Osytshnjuk et al., 2005 <red label, labelled by Yu. Astafurova> [ZMMU].

**Paralectotypes (16 ♀, 12 ♂).** 1 ♀, 24.[VI.1871] // Косараль // к.[ОЛЛЕКЦИЯ] Ф. Моравица [Collection of F. Morawitz] // *Andrena lateralis* F.Mor. Popov 1935 det.; 1 ♀, 1 ♂, <golden circle>, 24.[VI.1871] // Косараль // *lateralis* Mor. Тип. [handwritten by

F. Morawitz]; 2 ♂, 25.[IV.1871] // Чардара [Shardara] // к.[ОЛЛЕКЦИЯ] Ф. Моравица [Collection of F. Morawitz] // *Andrena lateralis* Mor. [handwritten by F. Morawitz] // Paralectotypus *Andrena lateralis* Mor., design. Osychnjuk, 1980 <identical red labels on each paralectotype specimen> [ZISP]; 4 ♀, 24.[IV.1871] // Косараль; 1 ♀, 30.[IV.1871] // Кизилкумь [Kyzyl-Kum desert]; 9 ♀, Оббурденъ [Obburden]; 2 ♀, Варзаминоръ [Varzaminor]; 9 ♂, 25.[IV.1871] // Чардара // Lectotypus *Andrena lateralis* Morawitz, 1876, design. Osytsnjuk et al., 2005 <identical red labels on each paralectotype specimen, labelled by Yu. Astafurova> [ZMMU].

**Current status.** *Andrena* (incertae sedis) *lateralis* Morawitz, 1876.

**Remarks.** Osytsnjuk et al. (2005: 144) mistakenly mentioned sex of the lectotype as a male instead of female.

**Distribution.** Europe, Russia (to East Siberia), Caucasus, Turkey, Israel, Iran, Afghanistan, Central Asia.

### 23. *Andrena leucorhina* Morawitz, 1876

Fig. 23

*Andrena leucorhina* Morawitz, 1876: 165 (key), 169, ♂.

**Type locality.** Shardara (Kazakhstan).

**Published (original) locality.** Kazakhstan: Syr-Darja River, near Chardara.

**Lectotype (designated here).** ♂, 25.[IV.1871] // Чардара [Kazakhstan, Shardara, 41°18'N, 67°57'E] // *Andrena leucorhina* Mor. [handwritten by F. Morawitz] // Lectotypus Warmcke 1975 <red label> // Lectotypus *Andrena leucorhina* Morawitz, 1876 design. Astafurova et al., 2022 <red label> [ZMMU].

**Paralectotypes (2 ♂).** 2 ♂, 25.[IV.1871] // Чардара [Chardara] // к.[ОЛЛЕКЦИЯ] Ф. Моравица [Collection of F. Morawitz] // *Andrena leucorhina* Morawitz [handwritten by F. Morawitz] // Paralectotypus *Andrena leucorhina* Morawitz, 1876 design. Astafurova et al., 2022 <red label> [1 ♂ – ZISP, 1 ♂ – ZMMU].

**Current status.** *Andrena* (*Ulandrena*) *abbreviata* Dours, 1873 (according to Guseinleitner and Schwarz 2002).

**Remarks.** Description of female: Morawitz 1876: 185 as *Andrena ravicollis* Morawitz, 1876 (synonymised by Osytsnjuk 1982: 28).

**Distribution.** Southern Balkans, Cyprus, Turkey, Levant, Caucasus, Ukraine, Russia, Central Asia.

### 24. *Andrena lucidicollis* Morawitz, 1876

Fig. 24

*Andrena lucidicollis* Morawitz, 1876: 165 (key), 181, ♂.

**Type locality.** Tashkent (Uzbekistan).



**Figure 23.** *Andrena leucorhina* Morawitz, 1876, lectotype, male **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Published (original) locality.** Uzbekistan: Tashkent.

**Syntype.** ♂, 5.[IV.1871] // ТАШКЕНТЪ [Uzbekistan, Tashkent, 41°18'N, 69°16'E] // *Andrena lucidicollis* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke, 1975 <red label> // Syntypus *Andrena lucidicollis* Mor., 1876 <red label> [ZMMU].

**Current status.** *Andrena* (*Poecilandrena*) *lucidicollis* Morawitz, 1876

**Remarks.** Female unknown (according to Gusenleitner and Schwarz 2002: 443).

Gusenleitner and Schwarz (2001: 140) refer to a “lectotype” deposited at the ZISP. However, we have found a single male specimen labelled “10.[IV.1871] // ТАШКЕНТЪ // *Andrena lucidicollis* Mor. var. [handwritten by F. Morawitz] // Paralectotypus *Andrena lucidicollis* Mor., design. Osychnjuk, 1980”. This specimen does not belong to the type series formally, as it is labelled “10.[10 April 1871]” (in the original description Morawitz mentioned only specimens collected on 5 April). The syntype (Fig. 24) deposited at the ZMMU and labelled by Warncke as a “Lectotypus” on our opinion is in too poor a condition to be designated as a lectotype. However, both exemplars belong to one species and could be considered to be syntypes.

**Distribution.** Uzbekistan.



**Figure 24.** *Andrena lucidicollis* Morawitz, 1876, syntype, male **A** genitalia, dorsal view **B** habitus, lateral view and labels **C** head, frontal view **D** labrum, dorsal view **E** metasoma, dorsal view **F** mesosoma, dorsal view. Scale bar: 1.0 mm.

## 25. *Andrena maculipes* Morawitz, 1876

Fig. 25

*Andrena maculipes* Morawitz, 1876: 162, 166 (key), 178, ♀, ♂.

**Type locality.** Samarkand (Uzbekistan).

**Published (original) locality.** Uzbekistan: near Samarkand.

**Lectotype.** ♂, designated by Osytshnjuk et al. 2005: 184, <golden circle>, 16.[III.1869] // Самаркандъ [Uzbekistan, Samarkand, 39°39'N, 66°57'E] // *maculipes* Mor. Typ. [handwritten by F. Morawitz] // Lectotypus *Andrena maculipes* Mor., design. Osytshnjuk, 1980 <red label> // Lectotypus *Andrena maculipes* Morawitz, 1876, design. Osytshnjuk et al., 2005 <red label, labelled by Yu. Astafurova> // Zoological Institute St. Petersburg INS\_HYM\_0000187 [ZISP].



**Figure 25.** *Andrena maculipes* Morawitz, 1876, lectotype, male **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T3, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Paralectotypes** (12 ♀, 2 ♂). 2 ♀, 2 ♂, Самаркандъ // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // *Andrena maculipes* F. Moraw. [handwritten by F. Morawitz]; 1 ♀, <golden circle>, 16.[III.1869] // Самаркандъ // *maculipes* Mor. Typ. [handwritten by F. Morawitz] // Paralectotypus *Andr. maculipes* Mor., design. Osytshnjuk, 1980 <identical red labels on each paralectotype specimen> [ZISP]; 7 ♀, 7, 16.[III.1869] // Самаркандъ; 2 ♀, 4.[III.1869] // Заравш.[анская] дол.[ина] [Zaravshan River Valley] // Paralectotypus *Andrena maculipes* Morawitz, 1876, design. Osytshnjuk et al., 2005 <identical red labels on each paralectotype specimen, labelled by Yu. Astafurova> [ZMMU].

**Current status.** *Andrena* (*Chrysandrena*) *maculipes* Morawitz, 1876.

**Remarks.** Osytshnjuk et al. (2005: 184) mistakenly mentioned the lectotype depository as the ZMMU instead of the ZISP.

**Distribution.** Central Asia.

## 26. *Andrena majalis* Morawitz, 1876

Fig. 26

*Andrena majalis* Morawitz, 1876: 163 (key), 182, ♀.

**Type locality.** Bairkum (Kazakhstan).



**Figure 26.** *Andrena majalis* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T3, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Published (original) locality.** Kazakhstan: Bairakum, Karak steppe; Uzbekistan: Zeravshan River valley, Dzham Gorge, Oalyk Gorge between Oalyk and Aksay.

**Lectotype.** ♀, designated by Osytsnjuk et al. 2008: 48, 4.[V.1871] // Байракумъ [Kazakhstan, Bairkum, Syr-Darya River, 42°05'N, 68°10'E] // *Andrena majalis* Mor. [handwritten by F. Morawitz] // Lectotypus Warmcke, 1975 <red label> // Lectotypus *Andrena majalis* Morawitz, 1876., design. Osytsnjuk et al., 2005 <red label, labelled by Yu. Astafurova> [ZMMU].

**Paralectotypes (14 ♀).** 3 ♀, the same labels as in the lectotype; 3 ♀, 5.[V.1871] // Каракск.[ая] степь [Karak steppe] // к.[оллекция] Ф. Моравица [Collection of F. Morawitz]// Paralectotypus *Andr. majalis* Mor., design. Osychnjuk, 1980 <identical red labels on each paralectotype specimen> [ZISP]; 4 ♀, 4.[V.1871] // Байракумъ; 1 ♀, 5.[V.1871] // Каракск.[ая] степь; 3 ♀, 16.,17.[V.1869] // Заравш.[анская] дол.[ина] [Zaravshan River Valley] // Paralectotypus *Andrena majalis* Morawitz, 1876 design. Osychnjuk et al., 2008 <identical red labels on each paralectotype specimen, labelled by Yu. Astafurova> [ZMMU].

**Current status.** *Andrena (Euandrena) majalis* Morawitz, 1876.

**Remarks.** Description of male: Shebl and Tadauchi 2009: 49, figs 23, 24.

**Distribution.** Central Asia.

## 27. *Andrena mordax* Morawitz, 1876

Fig. 27

*Andrena mordax* Morawitz, 1876: 165 (key), 196, ♂.

**Type locality.** Ayni (Tajikistan).

**Published (original) locality.** Tajikistan: Varzaminor.

**Lectotype.** ♂, designated by Osytsnjuk et al. 2008: 122, 8.[VI.1870] // Варзаминоръ [Tajikistan, Varzaminor (= Ayni), 39°23'N, 68°32'E] // *Andrena mordax* Mor. [handwritten by F. Morawitz] // Lectotypus Warmcke 1975 <red label> // Lectotypus *Andrena mordax* Morawitz, 1876, design. Osytsnjuk et al., 2008 <red label, labelled by Yu. Astafurova> [ZMMU].

**Paralectotypes (3 ♂).** 2 ♂, 8.[VI.1870] // Варзаминоръ // *Andrena mordax* Mor. [handwritten by F. Morawitz] // Paralectotypus *Andrena mordax* Mor., design. Osychnjuk, 1980 <red label> [ZISP]; 1 ♂, 9.[VI.1870] // Варзаминоръ // Paralectotypus *Andrena mordax* Morawitz, 1876, design. Osytsnjuk et al., 2008 <red label, labelled by Yu. Astafurova> [ZMMU].

**Current status.** *Andrena (Hoplandrena) mordax* Morawitz, 1876.

**Remarks.** Description of female: Morawitz 1880: 362.

**Distribution.** Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, China.



**Figure 27.** *Andrena mordax* Morawitz, 1876, lectotype, male **A** genitalia, dorsal view **B** habitus, lateral view and labels **C** head, frontal view **D** labrum, dorsal view **E** T1–T3, dorsal view **F** mesosoma, dorsal view. Scale bar: 1.0 mm.

## 28. *Andrena mucorea* Morawitz, 1876

Fig. 28

*Andrena mucorea* Morawitz, 1876: 164, 165 (key), 212, ♀, ♂.

**Type locality.** Between Tashkent and Keless River (Uzbekistan).

**Published (original) locality.** Uzbekistan: between Tashkent and Keless River, Urmitan [near Katty-Kurgan]; Kazakhstan: “between Keles [River] and Kosaral [Lake]”, Kyzyl Kum [desert].

**Lectotype (designated here).** ♀, 23.[IV.1871] // Келесъ [River] [Uzbekistan, between Tashkent and Keless River,  $\approx 41^{\circ}15'N$ ,  $69^{\circ}10'E$ ] // *Andrena mucorea* Mor.

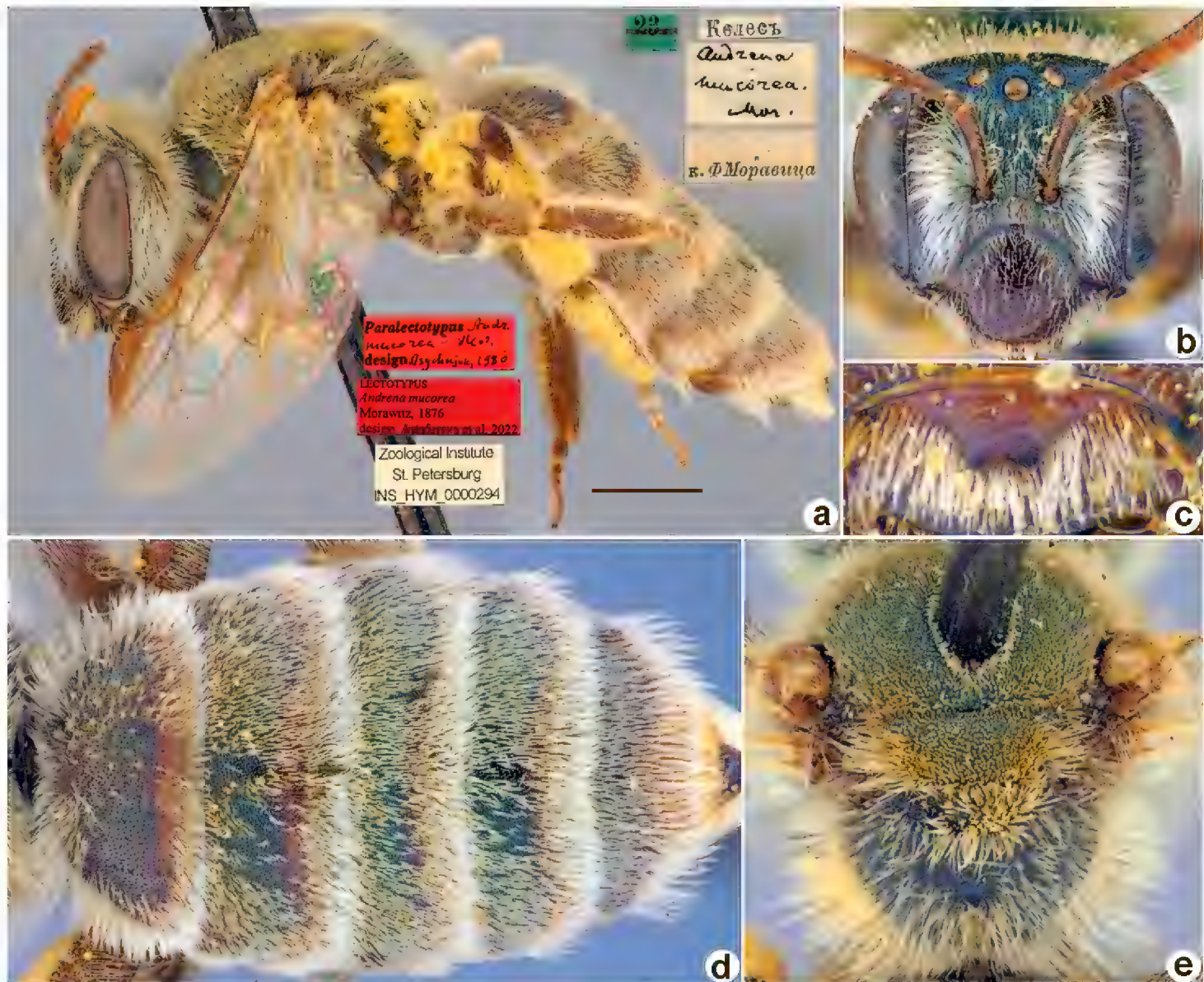


**Figure 28.** *Andrena mucorea* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

[handwritten by F. Morawitz] // к.[ОЛЛЕКЦИЯ] Ф. Моравица [Collection of F. Morawitz] // *Paralectotypus Andr. mucorea* Mor., design. Osychnjuk, 1980 <red label> // *Lectotypus Andrena mucorea* Morawitz, 1876 design. Astafurova et al., 2022 <red label> // Zoological Institute St. Petersburg INS\_HYM\_0000294 [ZMMU].

**Paralectotypes (12 ♀, 1 ♂).** 1 ♀, 1 ♂, 22., 23.[IV.1871] // Келесъ // к.[ОЛЛЕКЦИЯ] Ф. Моравица [Collection of F. Morawitz] // *Andrena mucorea* Mor. [handwritten by F. Morawitz]; 1 ♀, 24.IV.1871 // Косаралъ [Kosaral] // к.[ОЛЛЕКЦИЯ] Ф. Моравица [Collection of F. Morawitz]; 1 ♀, Косаралъ // к.[ОЛЛЕКЦИЯ] Ф. Моравица [Collection of F. Morawitz] // *mucorea* F. Mor., ♀ [handwritten by F. Morawitz] // *Paralectotypus Andr. mucorea* Mor., design. Osychnjuk, 1980 <identical red labels on each paralectotype specimen> [ZISP]; 1 ♀, 10.[V.1869] // Урмитанъ [Urmitan] // *Andrena mucorea* Mor. [handwritten by F. Morawitz] // *Lectotypus* Warncke 1975 <red label>; 7 ♀, 22., 23.[IV.1871] // Келесъ; 2 ♀, 9., 10.[V.1869] // Урмитанъ // *Paralectotypus Andrena mucorea* Morawitz, 1876, design. Astafurova et al., 2022 <identical red labels on each paralectotype specimen> [ZMMU].

**Current status.** *Andrena (Poecilandrena) mucorea* Morawitz, 1876.

**Distribution.** Uzbekistan, Tajikistan, Kazakhstan.

## 29. *Andrena nigrita* Morawitz, 1876

Fig. 29

*Andrena nigrita* Morawitz, 1876: 166 (key), 196, ♂.

**Type locality.** Iskanderkul Lake (Tajikistan).

**Published (original) locality.** Tajikistan: Iskanderkul Lake.

**Holotype.** ♂, 18.[VI.1870] // Искандеръ [Tajikistan, Iskanderkul Lake, Hissar Ridge, 39°04'N, 68°22'E] // *Andrena nigrita* Mor. [handwritten by F. Morawitz] // Lectotypus Warmcke 1975 <red label> // Holotypus *Andrena nigrita* Mor., 1876 <red label, labelled by Yu. Astafurova> [ZMMU].

**Current status.** *Andrena* (*Euandrena*) *nigritula* Cockerell, 1906 [replacement name by Cockerell 1906: 74 (nec *Andrena nigrita* Fabricius, 1775; nec *Nomada nigrita* Panzer, 1800)].



**Figure 29.** *Andrena nigrita* Morawitz, 1876, holotype, male **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Remarks.** Description of female: Morawitz 1893: 69.

The lectotype designation by Osytsnjuk et al. (2008: 36) is unnecessary as the species was described from a single male that was directly written about by Morawitz (1876: 196).

**Distribution.** Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan.

### 30. *Andrena nitidicollis* Morawitz, 1876

Fig. 30

*Andrena nitidicollis* Morawitz, 1876: 162, 166 (key), 180, ♀, ♂.

**Type locality.** Kyzylkum Desert (Kazakhstan).



**Figure 30.** *Andrena nitidicollis* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Published (original) locality.** Kazakhstan: Kyzyl-kum Desert; Karak mountains [western part of Kysyl-kum, NW Bairkum].

**Lectotype (designated here).** ♀, 29.[IV.1871] // КИЗИЛЪКУМЪ [Kazakhstan, Kyzyl-kum Desert, NW of Shardara,  $\approx 41^{\circ}58'N$ ,  $67^{\circ}03'E$ ] // *Andrena nitidicollis* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Lectotypus *Andrena nitidicollis* Morawitz, 1876, design. Astafurova et al., 2022 <red label> [ZMMU].

**Paralectotype.** 1 ♂, 6.[V.1871] // КИЗИЛЪКУМЪ // Paralectotypus *Andrena nitidicollis* Morawitz, 1876, design. Astafurova et al., 2022 <red label> [ZMMU].

**Current status.** *Andrena* (incertae sedis) *nitidicollis* Morawitz, 1876.

**Distribution.** Kazakhstan.

### 31. *Andrena nupta* Morawitz, 1876

Fig. 31

*Andrena nupta* Morawitz, 1876: 163, 166 (key), 191, ♀, ♂.

**Type locality.** Tashkent (Uzbekistan).

**Published (original) locality.** Uzbekistan: Tashkent and Samarkand.

**Lectotype.** ♀, designated by Osytnjuk et al. 2008: 46, 8.[IV.1871] // ТАШКЕНТЪ [Uzbekistan, Tashkent,  $41^{\circ}18'N$ ,  $69^{\circ}16'E$ ] // *Andrena nupta* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Lectotypus *Andrena nupta* Morawitz, 1876, design. Osytnjuk et al., 2008 <red label, labelled by Yu. Astafurova> [ZMMU].

**Paralectotypes (5 ♀, 4 ♂).** 1 ♀, the same label as in the lectotype; 2 ♀, 2 ♂, ТАШКЕНТЪ // к.[ОЛЛЕКЦИЯ] Ф. Моравица [Collection of F. Morawitz] // *nupta* F. Mor. [handwritten by F. Morawitz] // Paralectotypus *Andr. nupta* Mor., design. Osychnjuk, 1980 <identical red labels on each paralectotype specimen> [ZISP]; 2 ♀, 1 ♂, 27.[III.1871], 3., 8.[IV.1871] // ТАШКЕНТЪ; 1 ♂, 5.[IV.1869] // САМАРКАНДЪ [Samarkand] // Paralectotypus *Andrena nupta* Morawitz, 1876, design. Osytnjuk et al., 2008 <identical red labels on each paralectotype specimen, labelled by Yu. Astafurova> [ZMMU].

**Current status.** *Andrena* (*Euandrena*) *nupta* Morawitz, 1876.

**Distribution.** Uzbekistan, Kazakhstan.

### 32. *Andrena oralis* Morawitz, 1876

Fig. 32

*Andrena oralis* Morawitz, 1876: 162 (key), 177, ♀.

**Type locality.** Tashkent (Uzbekistan).

**Published (original) locality.** Uzbekistan: near Tashkent.

**Lectotype (designated here).** ♀, <golden circle> // Ташкентъ [Uzbekistan, Tashkent, 41°18'N, 69°16'E] // *oralis* Mor. Typ. [handwritten by F. Morawitz] // Lectotypus *Andrena oralis* Mor., design. Osychnjuk, 1980 <red label> // Lectotypus, *Andrena oralis* Morawitz, 1876, design. Astafurova et al., 2022 <red label> // Zoological Institute St. Petersburg INS\_HYM\_0000201 [ZISP].

**Paraectotype.** 1 ♀, 5.[IV.1871] // Ташкентъ // *Andrena oralis* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Paralectotypus *Andrena oralis* Morawitz, 1876, design. Astafurova et al., 2022 <red label> [ZMMU].

**Current status.** *Andrena* (*Orandrena*) *oralis* Morawitz, 1876.

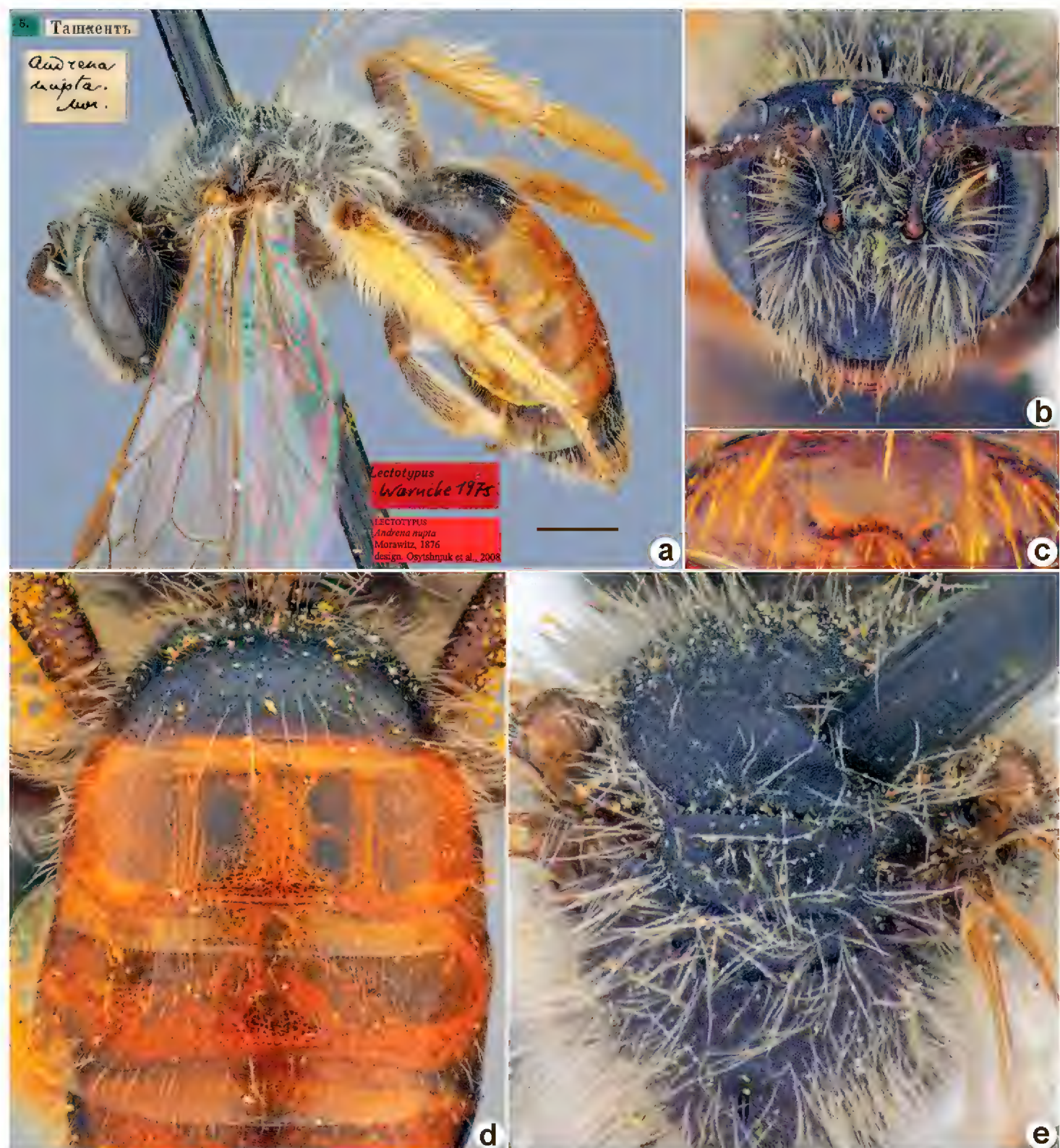


**Figure 3 I.** *Andrena nupta* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T3, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.



**Figure 32.** *Andrena oralis* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Remarks.** Description of male: Morawitz 1876: 177, as *Andrena sogdiana* Morawitz, 1876 (according to Gusenleitner and Schwarz 2001: 150).

**Distribution.** Europe, Russia (to the Urals), Turkey, Turkmenistan, Uzbekistan, Kazakhstan.

### 33. *Andrena pannosa* Morawitz, 1876

Fig. 33

*Andrena pannosa* Morawitz, 1876: 162 (key), 197, ♀.

**Type locality.** Khodzha-Chiburgan Gorge (Kyrgyzstan).



**Figure 33.** *Andrena pannosa* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Published (original) locality.** Kyrgyzstan: Khodzha-Chiburgan Gorge.

**Lectotype.** ♀, <golden circle>, 21.[VI.1871] // Чибурганъ [Kyrgyzstan, Khodzha-Chiburgan Gorge, S Varuch, ≈ 39°48'N, 70°41'E] // *pannosa* Mor. Typ. [handwritten by F. Morawitz] // Lectotypus *Andrena pannosa* Mor., design. Osychnjuk, 1980 <red label> // Lectotypus, *Andrena pannosa* Morawitz, 1876 design. Astafurova et al., 2022 <red label> // Zoological Institute St. Petersburg INS\_HYM\_0000287 [ZISP].

**Paralectotypes (2 ♀).** 1 ♀, 21.[VI.1871] // Чибурганъ // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // *Andrena pannosa* Mor. [handwritten by F. Morawitz] // Paralectotypus *Andr. pannosa* Mor., design. Osychnjuk, 1980 <red label> [ZISP]; 1 ♀, 21.[VI.1871] // Чибурганъ // Paralectotypus *Andrena pannosa* Morawitz, 1876, design. Astafurova et al., 2022 <identical red labels on each paralectotype specimen> [ZMMU].

**Current status.** *Andrena (Euandrena) pannosa* Morawitz, 1876.

**Remarks.** Description of male: Gusenleitner and Schwarz 2001: 153. The lectotype was mistakenly designated by Osytshnjuk et al. (2008: 54) in ZMMU. This specimen is a female labelled “21.[06.1971] // Soch [Uzbek enclave] *Andrena pannosa*

Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975.” However, according to the original description (Morawitz, 1876), the type location is “Khodzha-Chiburgan Gorge” [Kyrgyzstan, S Varuch]; thus, the lectotype published by Osyshnjuk et al. (2008) is not valid. There are two females in ZISP from “Chiburgan”, which correspond to the original description of Morawitz. One of these females labelled by A. Osyshnjuk as “lectotype” is designated here as a lectotype of *Andrena pannosa*.

**Distribution.** Uzbekistan, Kyrgyzstan, Tajikistan, Kazakhstan.

### 34. *Andrena planirostris* Morawitz, 1876

Fig. 34

*Andrena planirostris* Morawitz, 1876: 163, 165 (key), 174, ♀, ♂.

**Type locality.** Tashkent (Uzbekistan).

**Published (original) locality.** Uzbekistan: near Tashkent.



**Figure 34.** *Andrena planirostris* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Lectotype (designated here).** ♀, 23.[III.1871] // Ташкентъ [Uzbekistan, Tashkent, 41°18'N, 69°16'E] // *Andrena planirostris* Mor. [handwritten by F. Morawitz] // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // Paralectotypus *Andr. planirostris* Mor., design. Osychnjuk, 1980 <red label> // Lectotypus *Andrena planirostris* Morawitz, 1876, design. Astafurova et al., 2022 <red label> // Zoological Institute St. Petersburg INS\_HYM\_0000256 [ZISP].

**Paralectotypes** (20 ♀, 2 ♂). 1 ♀, <golden circle> // 25.[III.1871] // Ташкентъ // *planirostris* Mor. Typ. ♀ [handwritten by F. Morawitz]; 9 ♀, 23., 25.[III.1871] // Ташкентъ // к.[оллекция] Ф. Моравица [Collection of F. Morawitz]; 1 ♂, Ташкентъ // *planirostris* Mor. [handwritten by F. Morawitz] // Paralectotypus *Andr. planirostris* Mor., design. Osychnjuk, 1980 <red label> [ZISP]; 10 ♀, 1 ♂, 11., 22., 23., 24., 25., 26. Ташкентъ // Paralectotypus *Andrena planirostris* Morawitz, 1876, design. Astafurova et al., 2022 <identical red labels on each paralectotype specimen> [ZMMU].

**Remarks.** There is a female specimen labelled by Warcke as a “Lectotypus” [<golden circle> // 5.[IV.1871] // Ташкентъ // *Andrena planirostris* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975; ZMMU]. However, the label date does not correspond to any date [11–26.III.1871) mentioned for the type series by Morawitz (1876: 174).

**Current status.** *Andrena (Planiandrena) planirostris* Morawitz, 1876.

**Distribution.** Uzbekistan, Kazakhstan.

### 35. *Andrena punctifrons* Morawitz, 1876

Fig. 35

*Andrena punctifrons* Morawitz, 1876: 164 (key), 202, ♀.

**Type locality.** Khodzha-Chiburgan River (Kyrgyzstan).

**Published (original) locality.** Kyrgyzstan: “Khodzha-Chiburgan River”.

**Holotype.** ♀, Чибурганъ [Kyrgyzstan: Khodzha-Chiburgan River/Gorge, S Varuch, ≈ 39°48'N, 70°41'E] // *Andrena punctifrons* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Holotypus *Andrena punctifrons* Mor., 1876 <red label> [ZMMU].

**Current status.** *Andrena (Micrandrena) punctifrons* Morawitz, 1876.

**Remarks.** Listed as *Graecandrena* by Osytshnjuk et al. (2008: 93). Male unknown (according to Osytshnjuk et al. 2008: 93).

**Distribution.** Kyrgyzstan.

### 36. *Andrena punctiventris* Morawitz, 1876

Fig. 36

*Andrena punctiventris* Morawitz, 1876: 162 (key), 186, ♀.

**Type locality.** Iskanderkul Lake (Tajikistan).



**Figure 35.** *Andrena punctifrons* Morawitz, 1876, holotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T3, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Published (original) locality.** Tajikistan: near Iskander-Kul Lake.

**Holotype.** ♀, 15.[VI.1870] // Искандеръ [Tajikistan, Iskanderkul Lake, Hissar Ridge, 39°04'N, 68°22'E] // *Andrena punctiventris* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Holotypus *Andrena punctiventris* Mor., 1876 <red label> [ZMMU].

**Current status.** *Andrena* (*Lepidandrena*) *punctiventris* Morawitz, 1876.

**Remarks.** Listed as *Poliandrena* by Osytshnjuk (1994: 30). Description of male: Osytshnjuk 1994: 30, as *Andrena punctiventris* ssp. *basagiensis* Osytshnjuk, 1994.

**Distribution.** Uzbekistan, Tajikistan, Kazakhstan.



**Figure 36.** *Andrena punctiventris* Morawitz, 1876, holotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T3, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

### 37. *Andrena quadrifasciata* Morawitz, 1876

Fig. 37

*Andrena quadrifasciata* Morawitz, 1876: 163 (key), 168, ♀.

**Type locality.** Shakhimardan (Uzbekistan).

**Published (original) locality.** Uzbekistan: near Shakhimardan.

**Holotype.** ♀, 7.[VII.1871] // Шахимарданъ [Shakhimardan in the Uzbek enclave in the territory of Kyrgyzstan, Alai Ridge, 39°58'N, 71°47'E] // *Andrena quadrifasciata* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Holotypus *Andrena quadrifasciata* Mor., 1876 <red label> [ZMMU].



**Figure 37.** *Andrena quadrifasciata* Morawitz, 1876, holotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T3, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Current status.** *Andrena* (*Simandrena*) *quadrifasciata* Morawitz, 1876.

**Remarks.** Description of male: Gusenleitner and Schwarz 2001: 157.

**Distribution.** Tajikistan, Kazakhstan.

### 38. *Andrena ravicollis* Morawitz, 1876

Fig. 38

*Andrena ravicollis* Morawitz, 1876: 163 (key), 185, ♀.

**Type locality.** Shardara (Kazakhstan).



**Figure 38.** *Andrena ravicollis* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Published (original) locality.** Kazakhstan: Chardara.

**Lectotype (designated here).** ♀, <golden circle> // 25.[IV.1871] // Чардара [Kazakhstan, Shardara, 41°18'N, 67°57'E] // *ravicollis* Mor. Typ. [handwritten by F. Morawitz] // Paralectotypus *Andrena ravicollis* Mor., design. Osychnjuk, 1980 <red label> // Lectotypus *Andrena ravicollis* Morawitz, 1876, design. Astafurova et al., 2022 <red label> // *Andrena leucorhina*, D.A. Sidorov det., 2022 // Zoological Institute St. Petersburg INS\_HYM\_0000286 [ZISP].

**Paralectotype.** 1 ♀, 25.[IV.1871] // Чардара // *Andrena leucorhina*, D.A. Sidorov det., 2022 // Paralectotypus *Andrena ravicollis* Morawitz, 1876, design. Astafurova et al., 2022 < red label> [ZMMU].

**Remarks.** There is a female specimen (in bad condition) labelled by Warcke as a “Lectotypus” [27.[IV.1871] // Чардара // *Andrena ravicollis* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975; ZMMU]. However, the label date does not correspond the date [25.III.1871] mentioned for the type series by Morawitz (1876).

**Current status.** *Andrena* (*Ulandrena*) *abbreviata* Dours, 1873 (according to Guse-nleitner and Schwarz 2002).

**Distribution.** Southern Balkans, Cyprus, Turkey, Levant, Caucasus, Ukraine, Russia, Central Asia.

### 39. *Andrena rufilabris* Morawitz, 1876

Fig. 39

*Andrena rufilabris* Morawitz, 1876: 162 (key), 180, ♀.

**Type locality.** NW of Bairkum (Kazakhstan).

**Published (original) locality.** Uzbekistan: Katty-Kurgan; Kazakhstan: Karak steppe.

**Lectotype (designated here).** ♀, 5.[V.1871] // Каракск.[ая] степь [Kazakhstan, Karak steppe, NW of Bairkum,  $\approx 42^{\circ}46'N$ ,  $67^{\circ}24'E$ ] // *Andrena rufilabris* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Lectotypus *Andrena rufilabris* Morawitz, 1876, design. Astafurova et al., 2022 <red label> [ZMMU].

**Paralectotypes (2 ♀).** 2 ♀, 29.[VI.1869] and 6.[V.1869] // Катты Курганъ // *Andrena satra*, D.A. Sidorov det., 2022 // Paralectotypus, *Andrena rufilabris* Morawitz, 1876, design. Astafurova et al., 2022 <red label> [ZMMU].



**Figure 39.** *Andrena rufilabris* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Current status.** *Andrena* (*Simandrena*) *sarta* Morawitz, 1876 (according to Guse-nleitner and Schwarz 2002: 660).

**Distribution.** Uzbekistan, Kazakhstan.

#### 40. *Andrena rufina* Morawitz, 1876

Fig. 40

*Andrena rufina* Morawitz, 1876: 162, 165 (key), 167, ♀, ♂.

**Type locality.** Anzob (Tajikistan).

**Published (original) locality.** Tajikistan: Anzob.

**Lectotype.** ♂, designated by Osytshnjuk et al. 2005: 204, 20.VI.1870 // Ягнобъ [Tajikistan, Yagnob River near Anzob, 39°04'N, 68°52'E] // *Andrena rufina* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 // Lectotypus

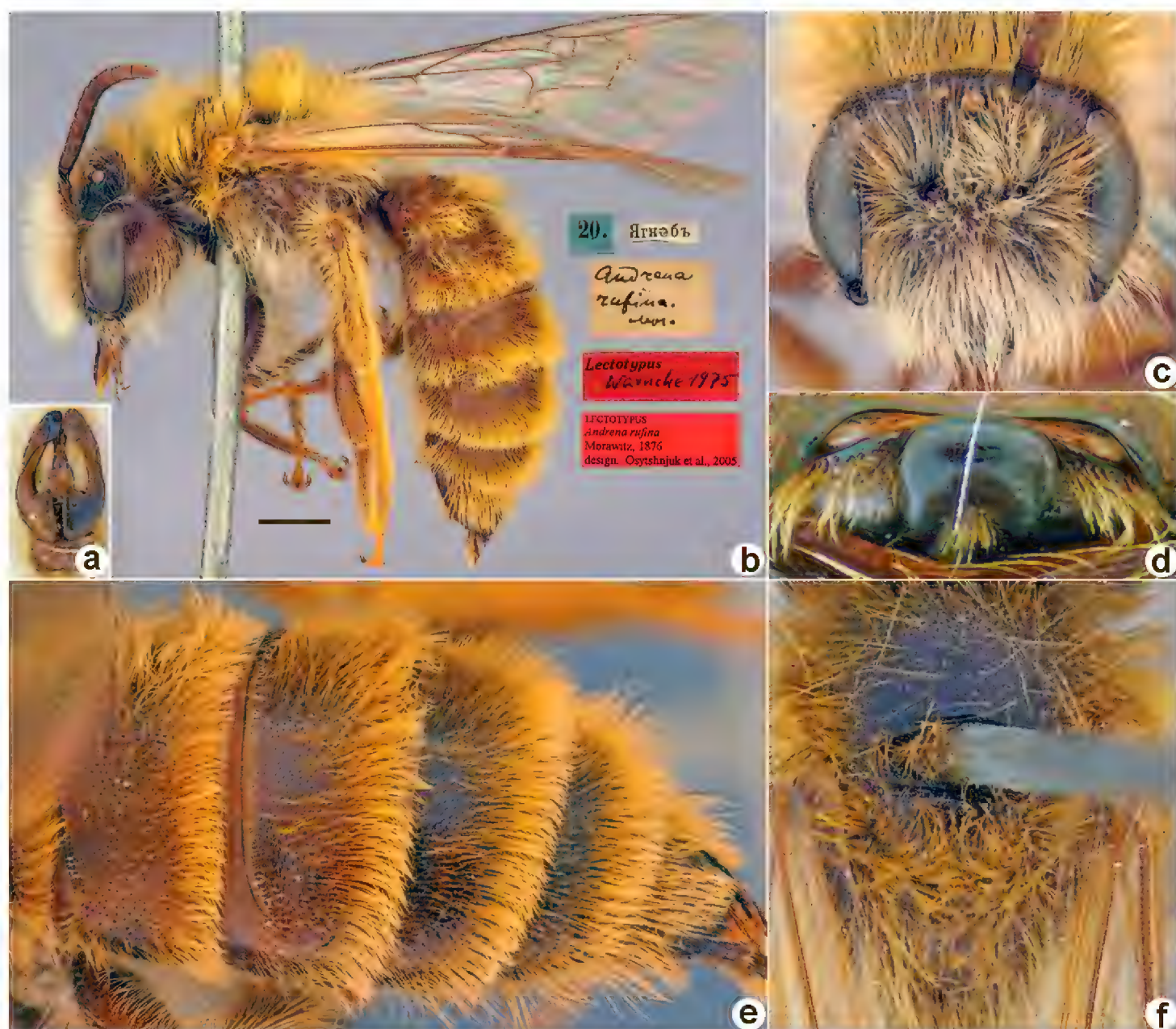


**Figure 40.** *Andrena rufina* Morawitz, 1876, lectotype, male **A** genitalia, dorsal view **B** habitus, lateral view and labels **C** head, frontal view **D** labrum, latero-dorsal view **E** metasoma, dorsal view **F** mesosoma, dorsal view. Scale bar: 1.0 mm.

*Andrena rufina* Morawitz, 1876, design. Osytsnjuk et al., 2005 <red label, labelled by Yu. Astafurova> [ZMMU].

**Paralectotype.** ♀, 75. // Туркест.[анский] кр.[ай] [Turkestan] // Paralectotypus, *Andrena rufina* Morawitz, 1876, design. Osytsnjuk et al., 2005 <red label, labelled by Yu. Astafurova> [ZMMU].

**Current status.** *Andrena* (*Cnemidandrena*) *rufina* Morawitz, 1876.

**Distribution.** Uzbekistan, Tajikistan, Kazakhstan.

#### 41. *Andrena sarta* Morawitz, 1876

Fig. 41

*Andrena sarta* Morawitz, 1876: 164 (key), 171, ♀.

**Type locality.** 30 km SE of Kozhatogai, Turkistan Province (Kazakhstan).



**Figure 41.** *Andrena sarta* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Published (original) locality.** Kazakhstan: steppe between Tashkent and Syrdarya River.

**Lectotype (designated here).** ♀, 20.[V.1871] // Степь м.[жду] С.[ыр] [-] д.[арьей] и Т.[ашкентом] [Kazakhstan, Turkistan Province, steppe between Syrdarya River and Tashkent, 30 km SE of Kozhatogai, 41°47'N, 68°23'E] // *sarta* Mor. [handwritten by Osytshnjuk] // Lectotypus Warncke 1975 // Lectotypus *Andrena sarta* Morawitz, 1876, design. Astafurova et al., 2022 <red label> [ZMMU].

**Current status.** *Andrena (Simandrena) sarta* Morawitz, 1876.

**Remarks.** Description of male: Gusenleitner and Schwarz 2001: 163.

**Distribution.** Uzbekistan, Kazakhstan.

#### 42. *Andrena semiaenea* Morawitz, 1876

Fig. 42

*Andrena semiaenea* Morawitz, 1876: 164 (key), 213, ♀.

**Type locality.** Keles River, Turkistan Province (Kazakhstan).

**Published (original) locality.** Kazakhstan: between Keles River and dry Keles; near Kosaral Lake; near Chardara.

**Lectotype.** ♀, designated by Osytshnjuk et al. 2008: 155, 23.[IV.1871] // Келесь [Kazakhstan, Turkistan Province, Keles River] // *Andrena semiaenea* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke, 1975 // Lectotypus *Andrena semiaenea* Morawitz, 1876, Osytshnjuk et al., 2008 <red label, labelled by Yu. Astafurova> [ZMMU].

**Paralectotypes (4 ♀).** 3 ♀, 25.IV.1871 // Чардара [Chardara] // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // Paralectotypus *Andr. semiaenea* Mor., design. Osytshnjuk, 1980 <red label> [ZISP]; 1 ♀, 24.[IV.1871] // Косараль [Kosaral] // Paralectotypus *Andena semiaenea* Mor., design. Osytshnjuk et al., 2008 <identical red labels on each paralectotype specimen, labelled Yu. Astafurova> [ZMMU].

**Current status.** *Andrena (Poecilandrena) semiaenea* Morawitz, 1876.

**Remarks.** Listed as *Lepidandrena* by Osytshnjuk et al. (2008: 155). Description of male: Gusenleitner and Schwarz 2001: 167.

**Distribution.** Afghanistan, Uzbekistan, Kazakhstan, Mongolia.

#### 43. *Andrena smaragdina* Morawitz, 1876

Fig. 43

*Andrena smaragdina* Morawitz, 1876: 164, 165 (key), 211, ♀, ♂.

**Type locality.** Samarkand (Uzbekistan).

**Published (original) locality.** Uzbekistan: Samarkand.



**Figure 42.** *Andrena semiaenea* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T3, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Lectotype (designated here).** ♀, Самаркандъ [Uzbekistan, Samarkand, 39°39'N, 66°57'E] // *Andrena smaragdina* Mor. [handwritten by F. Morawitz] // к.[ОЛЛЕКЦИЯ] Ф. Моравица [Collection of F. Morawitz] // Paralectotypus *Andrena smaragdina* Mor., design. Osychnjuk, 1980 <red label> // Lectotypus *Andrena smaragdina* Morawitz, 1876, design. Astafurova et al., 2022 <red label> // Zoological Institute St. Petersburg INS\_HYM\_0000293 [ZISP].

**Paralectotypes** (2 ♀, 1 ♂). 1 ♀, 28.[II.1869] // Самаркандъ // *Andrena smaragdina* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label>; 1 ♀, 1 ♂, 10., 28.[II.1869] // Самаркандъ // Paralectotypus *Andrena smaragdina* Morawitz, 1876, design. Astafurova et al., 2022 <red label> [ZMMU].



**Figure 43.** *Andrena smaragdina* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Current status.** *Andrena* (*Notandrena*) *smaragdina* Morawitz, 1876.

**Remarks.** Listed as *Poecilandrena* by Osytshnjuk et al. (2005: 28).

**Distribution.** Uzbekistan, Tajikistan.

#### 44. *Andrena sogdiana* Morawitz, 1876

Fig. 44

*Andrena sogdiana* Morawitz, 1876: 165 (key), 177, ♂.

**Type locality.** Samarkand (Uzbekistan).

**Published (original) locality.** Uzbekistan: Samarkand.

**Lectotype (designated here).** ♂, 11.[IV.1869] // Самаркандъ [Uzbekistan, Samarkand, 39°39'N, 66°57'E] // *Andrena sogdiana* Mor. [handwritten by F. Morawitz]



**Figure 44.** *Andrena sogdiana* Morawitz, 1876, lectotype, male **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, latero-dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

// Paralectotypus *Andrena sogdiana* Mor., design. Osychnjuk, 1980 <red label> // *Andrena oralis*, ♂, D.A. Sidorov det. 2022 // Lectotypus *Andrena sogdiana* Morawitz, 1876, design. Astafurova et al., 2022 <red label> // Zoological Institute St. Petersburg INS\_HYM\_0000292 [ZISP].

**Current status.** *Andrena* (*Orandrena*) *oralis* Morawitz, 1876 (according to Gusenleitner and Schwarz 2001: 150).

**Remarks.** There is a male specimen labelled by Warncke as a “Lectotypus” (3.[IV.1869] // Самарканд // *Andrena sogdiana* Mor.[handwritten by F. Morawitz] // Lectotypus Warncke 1975; ZMMU). However, the label date does not correspond the date [11.IV.1869] mentioned for the type series by Morawitz (1876).

**Distribution.** Europe, Russia (to the Urals), Turkey, Turkmenistan, Uzbekistan, Kazakhstan.

**45. *Andrena sordida* Morawitz, 1876**

Fig. 45

*Andrena sordida* Morawitz, 1876: 163, 166 (key), 173, ♀, ♂.

**Type locality.** Tashkent (Uzbekistan).

**Published (original) locality.** Uzbekistan: near Tashkent.

**Lectotype.** ♀, designated by Osytshnjuk et al. 2008: 161, 5. [IV.1871] // Ташкентъ [Uzbekistan, Tashkent, 41°18'N, 69°16'E] // *Andrena sordida* Mor. [handwritten by F.



**Figure 45.** *Andrena sordida* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T3, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

Morawitz] // Lectotypus Warncke 1975 <red label> // Lectotypus *Andrena sordida* Morawitz, 1876, design. Osytnjuk et al., 2008 // <red label, labelled by Yu. Astafurova> [ZMMU].

**Paralectotypes** (83 ♀, 2 ♂). 1 ♀, 1 ♂, the same label as in the lectotype; 4 ♀, Ташкентъ // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // *sordida* [handwritten by F. Morawitz] // Paralectotypus *Andr. sordida* Mor., design. Osychnjuk, 1980 <identical red labels on each paralectotype specimen> [ZISP]; 78 ♀, 1 ♂, 1., 3., 5., 8.[IV.1871], 28.[III.1871] // Ташкентъ // Paralectotypus *Andrena sordida* Mor. design. Osytnjuk et al., 2008 // <red label, labelled by Yu. Astafurova> [ZMMU].

**Current status.** *Andrena* (*Leucandrena*) *sordidella* Viereck, 1918, replacement name for *A. sordida* Morawitz, 1876 (nec *Apis sordida* Scopoli, 1763; nec *Apis sordida* Gmelin, 1790).

**Distribution.** Uzbekistan.

#### 46. *Andrena subaenescens* Morawitz, 1876

Fig. 46

*Andrena subaenescens* Morawitz, 1876: 164, 166 (key) 207, ♀, ♂.

**Type locality.** Samarkand (Uzbekistan).

**Published (original) locality.** Uzbekistan: Samarkand.

**Lectotype (designated here).** ♀, <golden circle> // 27.[II.1869] // Самаркандъ [Uzbekistan, Samarkand, 39°39'N, 66°57'E] // *subaenescens* Mor. Typ. [handwritten by F. Morawitz] // Paralectotypus *Andrena subaenescens* Mor., design. Osychnjuk, 1980 <red label> // Lectotypus *Andrena subaenescens* Morawitz, 1876, design. Astafurova et al., 2022 <red label> // Zoological Institute St. Petersburg INS\_HYM\_0000255 [ZISP].

**Paralectotypes** (8 ♀, 1 ♂). 3 ♀, 27.[II.1869] // Самаркандъ // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // Paralectotypus *Andr. sordida* Mor., design. Osychnjuk, 1980 <red label> [ZISP]; 1 ♀, 27.[II.1869] // Самаркандъ // *Andrena subaenescens* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke, 1975 <red label>; 4 ♀, 1 ♂. 27., 28.[II–18.III.1869] // Самаркандъ // Paralectotypus *Andrena subaenescens* Morawitz, 1876, design. Astafurova et. al., 2022 <identical red labels on each paralectotype specimen> [ZMMU].

**Current status.** *Andrena* (*Poecilandrena*) *subaenescens* Morawitz, 1876.

**Distribution.** Uzbekistan.

#### 47. *Andrena temporalis* Morawitz, 1876

Fig. 47

*Andrena temporalis* Morawitz, 1876: 165 (key), 204, ♂.

**Type locality.** Samarkand (Uzbekistan).



**Figure 46.** *Andrena subaenescens* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Published (original) locality.** Uzbekistan: Samarkand.

**Lectotype.** ♂, designated by Osytshnjuk et al. 2005: 151, 20.[III.1869] // Самаркандъ [Uzbekistan, Samarkand, 39°39'N, 66°57'E] // *Andrena temporalis* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Lectotypus, *Andrena temporalis* Morawitz, 1876, design. Osytshnjuk et al., 2008 // <red label, labelled by Yu. Astafurova> [ZMMU].

**Paralectotypes** (7 ♂). 1 ♂, <golden circle> // 20.[III.1869] // Самаркандъ // *temporalis* Mor. Typ. [handwritten by F. Morawitz]; 1 ♂, Самаркандъ // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // *Andrena temporalis* F. Morawitz, ♂ [handwritten by F. Morawitz] // Paralectotypus *Andr. temporalis* Mor., design. Osytshnjuk, 1980 <red label> [ZISP]; 5 ♂, 16., 20.[III.1869] // Самаркандъ // Paralectotypus, *Andrena temporalis* Morawitz, 1876, design. Osytshnjuk et al., 2005 et al. <identical red labels on each paralectotype specimen, labelled by Yu. Astafurova> [ZMMU].

**Current status.** *Andrena* (*Notandrena*) *hieroglyphica* Morawitz, 1876 (synonymised by Osytshnjuk 1984: 3).

**Distribution.** Iran, Turkmenistan, Uzbekistan, Tajikistan, Pakistan.



**Figure 47.** *Andrena temporalis* Morawitz, 1876, lectotype, male **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T3, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**48. *Andrena tuberculiventris* Morawitz, 1876**

Fig. 48

*Andrena tuberculiventris* Morawitz, 1876: 166 (key), 184, ♂.

**Type locality.** Tashkent (Uzbekistan).

**Published (original) locality.** Uzbekistan: Tashkent.

**Lectotype (designated here).** ♂, 10.[IV.1871] // ТАШКЕНТЪ [Uzbekistan, Tashkent, 41°18'N, 69°16'E] // *Andrena tuberculiventris* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Lectotypus *Andrena tuberculiventris* Morawitz, 1876, design. Astafurova et al., 2022 <red label> [ZMMU].

**Paralectotypes (3 ♂).** 1 ♂, <golden circle> // 10.[IV.1871] // ТАШКЕНТЪ // *tuberculiventris* Mor. Typ. [handwritten by F. Morawitz] // Paralectotypus *Andr. tuberculiventris* Mor., design. Osychnjuk, 1980 <red label> [ZISP]; 2 ♂, 10.[IV.1871] // ТАШКЕНТЪ // Paralectotypus *Andrena tuberculiventris* Morawitz, 1876, design. Astafurova et al., 2022 <red label> [ZMMU].



**Figure 48.** *Andrena tuberculiventris* Morawitz, 1876, lectotype, male **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Current status.** *Andrena* (*Parandrenella*) *tuberculiventris* Morawitz, 1876 (according to Scheuchl et al. 2011: 225).

**Remarks.** Listed as *Andrena* (*Parandrenella*) *bicarinata* Morawitz, 1876 by Gusenleitner and Schwarz (2002: 123).

**Distribution.** Uzbekistan, Tajikistan.

#### 49. *Andrena turkestanica* Morawitz, 1876

Fig. 49

*Andrena turkestanica* Morawitz, 1876: 162, 166 (key), 192, ♀, ♂.

**Type locality.** Urgut, Zeravshan River valley (Uzbekistan).

**Published (original) locality.** Uzbekistan: Zeravshan River valley; steppe between Ulus and Dzham.



**Figure 49.** *Andrena turkestanica* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Lectotype (designated here).** ♀, Верхн.[ий] Заравш.[ан] [Uzbekistan, Zeravshan River valley, near Urgut, 39°24'N, 67°13'E] // *turkestanica* F. Mor. ♀, [handwritten by F. Morawitz] // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // Paralectotypus *Andr. turkestanica* Mor., design. Osychnjuk, 1980 <red label> // Lectotypus *Andrena turkestanica* Morawitz, 1876, design. Astafurova et al., 2022 <red label> // Zoological Institute St. Petersburg INS\_HYM\_0000285 [ZISP].

**Paralectotypes (3 ♀).** 2 ♀, <golden circle> // Верхн. Заравш. // *turkestanica* Mor. Typ. ♀ [handwritten by F. Morawitz] // Paralectotypus *Andr. turkestanica* Mor., design. Osychnjuk, 1980 <red label> [ZISP]; 1 ♀, 12.[V.1869] // Верхн. Заравш. // *Andrena turkestanica* Mor. // Lectotypus Warncke 1975 <red label> // Paralectotypus *Andrena turkestanica* Morawitz, 1876, design. Astafurova et al., 2022 <identical red labels on each paralectotype specimen> [ZMMU].

**Current status.** *Andrena (Melanapis) fuscata* Erichson, 1835 (synonymised by Warncke 1967: 315).

**Remarks.** Listed as “*turcestanica*” by Gusenleitner and Schwarz (2002: 303).

**Distribution.** Europe, North Africa, Russia (Dagestan Rep.), Caucasus, Turkey, Syria, Lebanon, Israel, Jordan, Iran, Afghanistan, Pakistan, Central Asia, India.

## 50. *Andrena urmitana* Morawitz, 1876

Fig. 50

*Andrena urmitana* Morawitz, 1876: 165 (key), 175, ♂.

**Type locality.** Urmetan (Tajikistan).

**Published (original) locality.** Tajikistan: near Urmitan [Urmetan].

**Holotype.** ♂, 2.[V.1869] // Урмитанъ [Tajikistan, Urmetan, 39°26'N, 68°15'E] // *Andrena urmitana* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Holotypus *Andrena urmitana* Mor., 1876 <red label> [ZMMU].

**Current status.** *Andrena (Nobandrena) acutilabris* Morawitz, 1876 (according to Gusenleitner and Schwarz 2002: 410).

**Distribution.** Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan.

## 51. *Andrena virescens* Morawitz, 1876

Fig. 51

*Andrena virescens* Morawitz, 1876: 164, 165 (key), 209, ♀, ♂.

**Type locality.** Tashkent (Uzbekistan).

**Published (original) locality.** Uzbekistan: near Samarkand, near Tashkent, between Tashkent and Keless River.



**Figure 50.** *Andrena urmitana* Morawitz, 1876, lectotype, male **A** genitalia, dorsal view **B** habitus, lateral view and labels **C** head, frontal view **D** labrum, dorsal view **E** T1–T3, dorsal view **F** mesosoma, dorsal view. Scale bar: 1.0 mm.

**Lectotype (designated here).** ♀, Ташкентъ [Uzbekistan, Tashkent, 41°18'N, 69°16'E] // *virescens* Mor., ♀ [handwritten by F. Morawitz] // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // Paralectotypus *Andr. virescens* Mor., design.

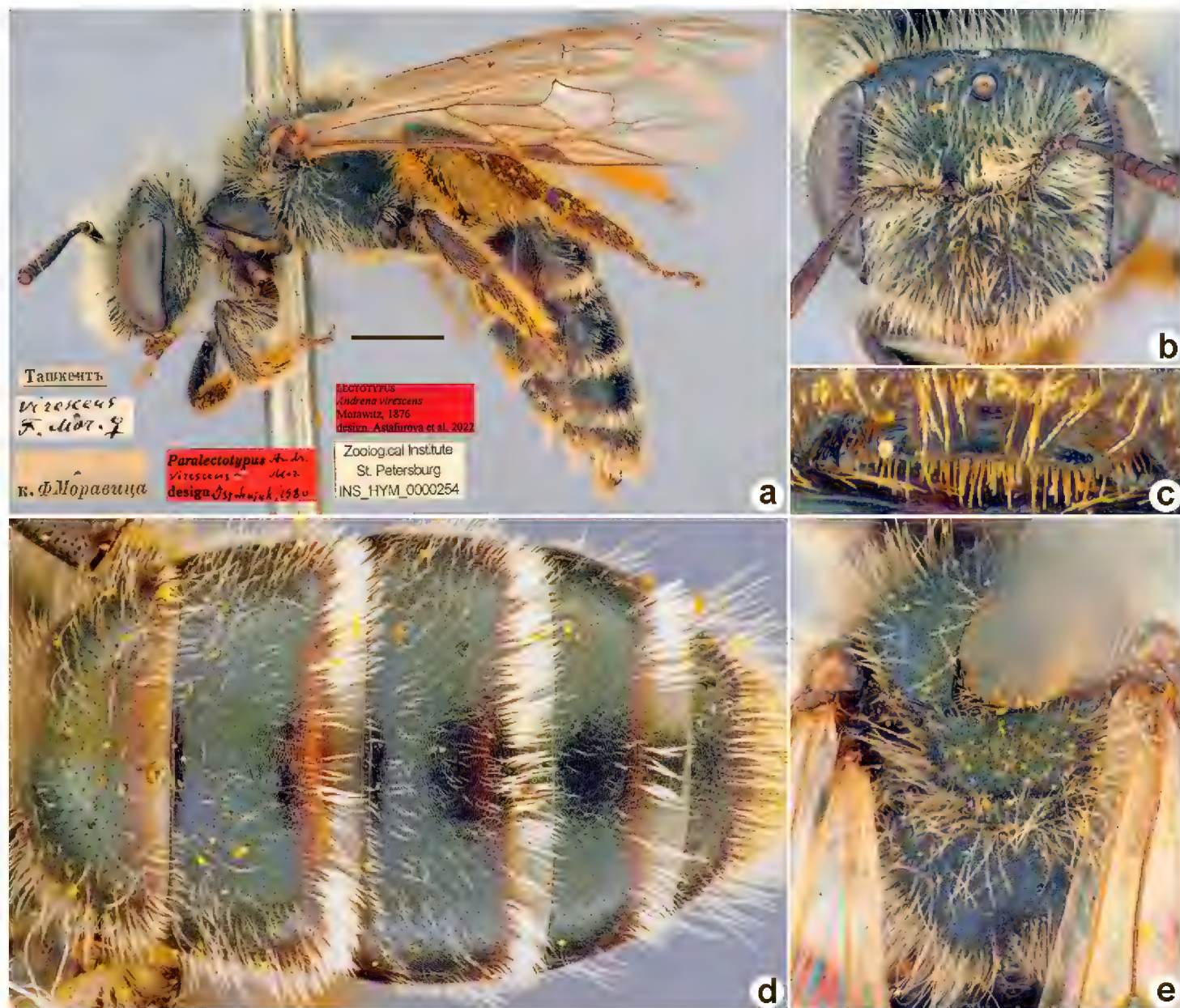


**Figure 51.** *Andrena virescens* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** metasoma, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

Osychnjuk, 1980 <red label> // Lectotypus *Andrena virescens* Morawitz, 1876, design. Astafurova et al., 2022 <red label> // Zoological Institute St. Petersburg INS\_HYM\_0000254 [ZISP].

**Paralectotypes** (7 ♀, 8 ♂). 4 ♂, 27., 28.[II.1869] // Самаркандъ // к.[ОЛЛЕКЦИЯ] Ф. Моравица [Collection of F. Morawitz] // Paralectotypus *Andr. virescens* Mor., design. Osychnjuk, 1980 <red label> [ZISP]; 1 ♂, 27.[II.1869] // Самаркандъ // *Andrena virescens* Mor. [handwritten by F. Morawitz] // Lectotypus Warncke, 1975 <red label>; 5 ♀, 1 ♂, 10., 23., 24.[III.1871], 8.[IV.1871] // Ташкентъ; 1 ♀, 2 ♂, 27.[II.1869] // Самаркандъ ; 1 ♀, 22.[IV.1871] // Келесъ // // Paralectotypus, *Andrena virescens* Morawitz, 1876, design. Astafurova et al., 2022 <identical red labels on each paralectotype specimen> [ZMMU].

**Current status.** *Andrena (Poecilandrena) virescens* Morawitz, 1876.

**Distribution.** Uzbekistan, Tajikistan.

## 52. *Andrena viridigastra* Morawitz, 1876

Fig. 52

*Andrena viridigastra* Morawitz, 1876: 164, 165 (key), 206, ♀, ♂.

**Type locality.** Tashkent (Uzbekistan).

**Published (original) locality.** Uzbekistan: Tashkent, Samarkand.

**Lectotype.** ♀, designated by Osyshnjuk et al. 2008: 220, 28.[II.1871] // Ташкентъ [Uzbekistan, Tashkent, 41°18'N, 69°16'E] // *Andrena viridigastra* Mor.



**Figure 52.** *Andrena viridigastra* Morawitz, 1876, lectotype, female **A** habitus, lateral view and labels **B** head, frontal view **C** labrum, dorsal view **D** T1–T3, dorsal view **E** mesosoma, dorsal view. Scale bar: 1.0 mm.

[handwritten by F. Morawitz] // Lectotypus Warncke 1975 <red label> // Lectotypus, *Andrena viridigastra* Morawitz, 1876, design. Osyshnjuk et al., 2008 // <red label, labelled by Yu. Astafurova> [ZMMU].

**Paralectotypes** (29 ♀, 32 ♂). 1 ♀, <golden circle>, 16.[III.1869] // Самаркандъ // *viridigastra* Mor., ♀, Typ. [handwritten by F. Morawitz]; 2 ♀, 27.[II.1871] // Ташкентъ [Tashkent] // к.[ОЛЛЕКЦИЯ] Ф. Моравица [Collection of F. Morawitz] // *viridigastra* Mor. [handwritten by F. Morawitz]; 1 ♂, <golden circle> // 16.[III.1871] // Ташкентъ // *viridigastra* Mor. ♂, Typ. [handwritten by F. Morawitz] // Paralectotypus *Andr. viridigastra* Mor., design. Osyshnjuk, 1980 <identical red labels on each paralectotype specimen> [ZISP]; 20 ♀, 14 ♂, 28.[II.1871], 16., 23., 24., 25., 27.[III.1871], 5., 8., 10., 11.[IV.1871] // Ташкентъ; 6 ♀, 17 ♂, 16., 18., 21., 25[III.1869] // Самаркандъ // Paralectotypus, *Andrena viridigastra* Morawitz, 1876, design. Osyshnjuk et al., 2005 <identical red labels on each paralectotype specimen, labelled by Yu. Astafurova> [ZMMU].

**Current status.** *Andrena (Melandrena) viridigastra* Morawitz, 1876.

**Distribution.** Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan.

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